



**CAMP LEJEUNE vs. NO. CAROLINA PRE-FLIGHT**

**TWENTY-FIVE  
CENTS**

# Introducing the Navy's first land-based bomber

**1.** PV-1—That's the U.S. Navy's name for the Vega Ventura. It's a nautical version of the smashing new twin-engine bomber that is making a flaming Hell out of German industrial centers in almost daily R. A. F. raids. These deep-bellied Navy PV-1's strike at sea. They swoop in low from the sky with torpedoes for marauding surface craft or "ash can" depth charges for sub-busting.



**2.** Operating from land bases, the PV-1 is the first Navy bomber of its type to tackle the job of clearing Allied shipping lanes so that precious supplies may go through. Airfields on small island outposts are big enough for PV-1's, and droppable fuel tanks give the planes effective range to blast the enemy. They are proving

to be one of the answers to the important problem of licking enemy submarines.



**3.** Like the Ventura it is versatile—capable of many jobs. Although designed primarily for bombing, its 4000 h.p. also can be useful for towing targets for fast fighter plane practice, or for hauling troop-laden gliders.



**4.** Bigger, faster, and able to carry a larger load than the Lockheed Hudson, which they closely resemble, the PV-1 and the Vega Ventura retain the same qualities of dependability. Single spar wing construction, 100% X-Ray of all stress parts and ruggedness of design are

the qualities of stamina that permit these planes to go through so much—yet bring the crews home safely.



Lockheed P-38  
Lightning  
Fighter

ALL FIRST CLASS MAIL



BY AIR — IT'S COMING!



Vega Ventura  
medium  
Bomber

**A subsidiary of Lockheed**

## Vega

**Aircraft Corporation**

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CAMP LEJEUNE

VS.

NO. CAROLINA PRE-FLIGHT SCHOOL

Kenan Stadium

Chapel Hill, No. Carolina

Nov. 13, 1943

*This program is published by the Athletic Associations of the five U. S. Navy Pre-Flight Schools and is printed under the direction of the Pre-Flight Section of the Aviation Training Division in the Office of the Chief of Naval Operations.*



# *“I will”*

The following was found on the flyleaf of the diary of  
an Iowa boy who fell at Chateau-Thierry in 1918:

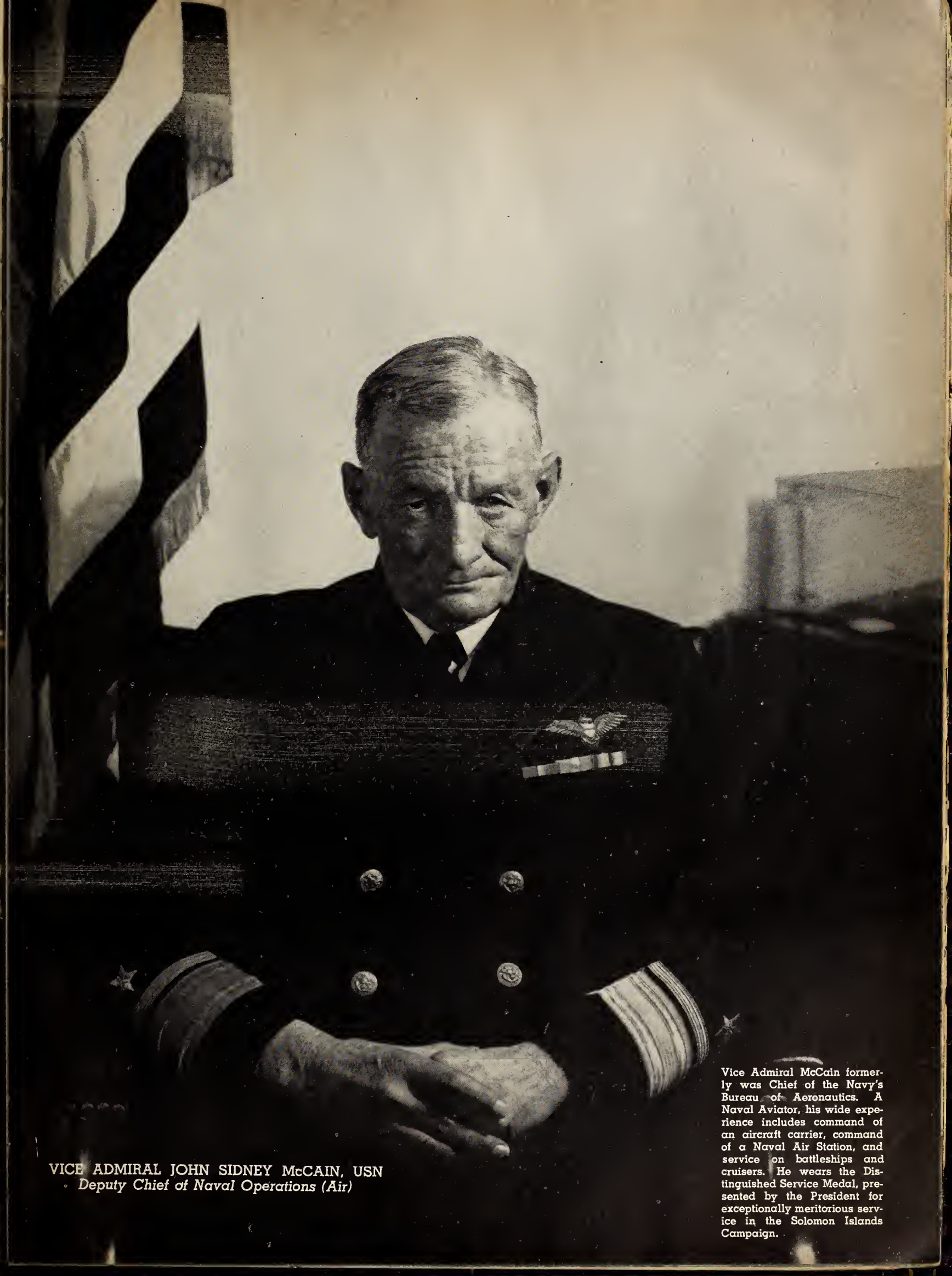
“America *must* win this war.

Therefore *I will* work; *I will*  
save; *I will* sacrifice; *I will* en-  
dure; *I will* fight cheerfully and  
do my utmost, as if the issue of the  
whole struggle depended on me alone.”

**...“as if the issue of the whole struggle depended on me alone.”**

THE BG CORPORATION • NEW YORK





VICE ADMIRAL JOHN SIDNEY MCCAIN, USN  
Deputy Chief of Naval Operations (Air)

Vice Admiral McCain formerly was Chief of the Navy's Bureau of Aeronautics. A Naval Aviator, his wide experience includes command of an aircraft carrier, command of a Naval Air Station, and service on battleships and cruisers. He wears the Distinguished Service Medal, presented by the President for exceptionally meritorious service in the Solomon Islands Campaign.



CAPTAIN FRANK T. WARD, USN, is the Director of Aviation Training in the Office of the Chief of Naval Operations. He is charged with the coordination of all aviation training.

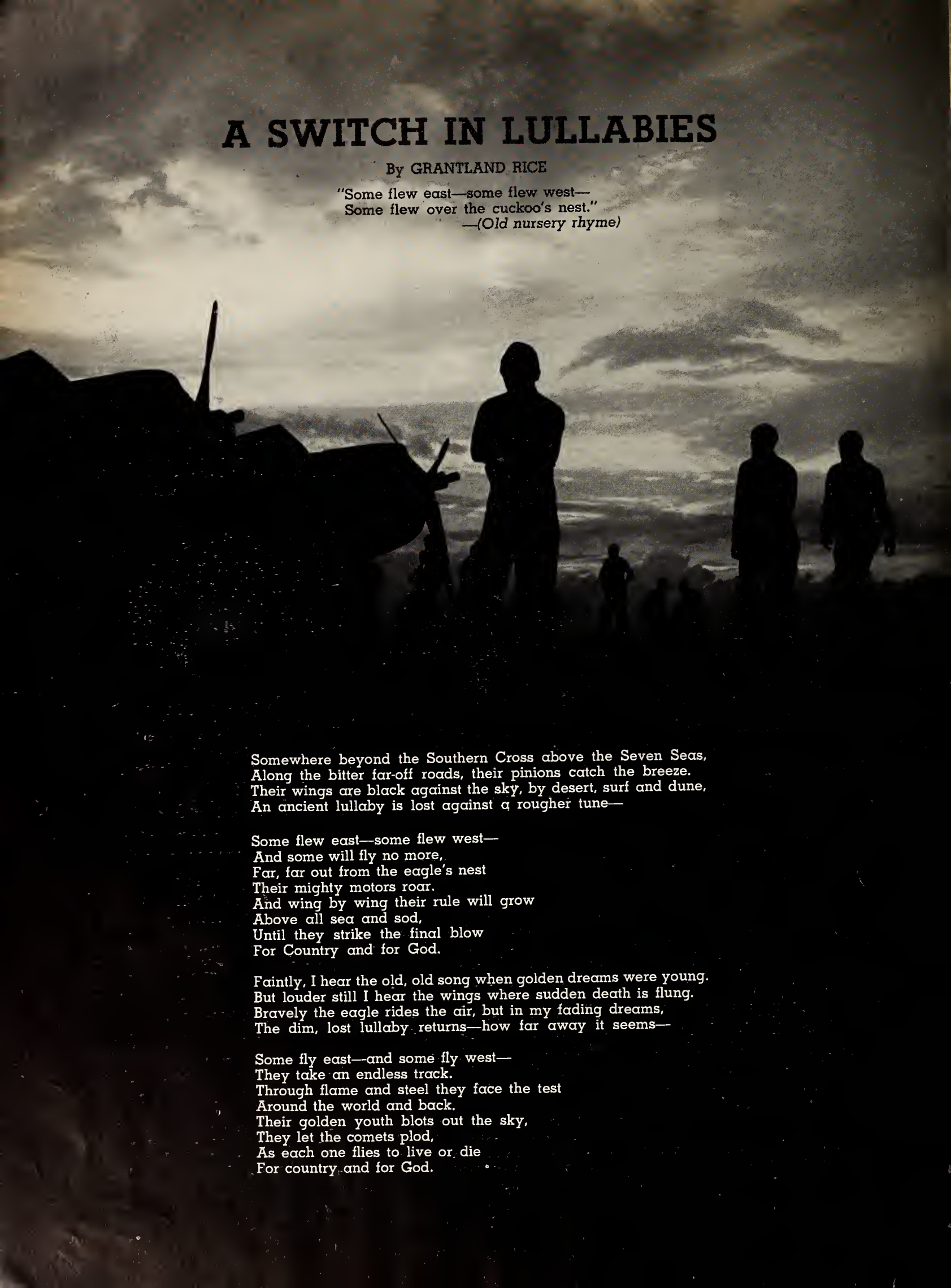


LT. COMMANDER FRANK H. WICKHORST, USNR, is Head of the Pre-Flight Section of the Aviation Training Division in the Office of the Chief of Naval Operations. As such, in addition to his duties pertaining to the Pre-Flight Schools, he is responsible for making recommendations pertaining to physical training in all phases of Naval Aviation.

# A SWITCH IN LULLABIES

By GRANTLAND RICE

"Some flew east—some flew west—  
Some flew over the cuckoo's nest."  
—(Old nursery rhyme)

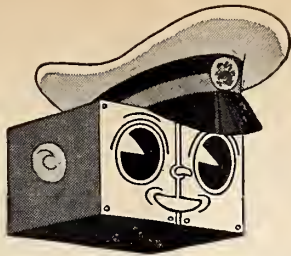


Somewhere beyond the Southern Cross above the Seven Seas,  
Along the bitter far-off roads, their pinions catch the breeze.  
Their wings are black against the sky, by desert, surf and dune,  
An ancient lullaby is lost against a rougher tune—

Some flew east—some flew west—  
And some will fly no more,  
Far, far out from the eagle's nest  
Their mighty motors roar.  
And wing by wing their rule will grow  
Above all sea and sod,  
Until they strike the final blow  
For Country and for God.

Faintly, I hear the old, old song when golden dreams were young.  
But louder still I hear the wings where sudden death is flung.  
Bravely the eagle rides the air, but in my fading dreams,  
The dim, lost lullaby returns—how far away it seems—

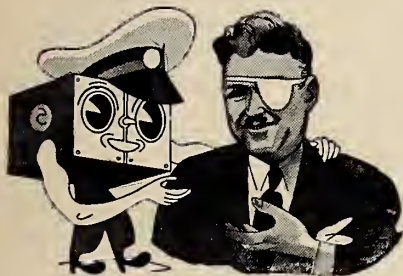
Some fly east—and some fly west—  
They take an endless track.  
Through flame and steel they face the test  
Around the world and back.  
Their golden youth blots out the sky,  
They let the comets plod,  
As each one flies to live or die  
For country and for God.



# Song of Elmer...

## the pilot who never gets tired

He holds no place in the Officer's Mess  
for he does not sleep or eat,  
He's the Quietest Birdman ever took  
his place in a cockpit seat—  
He joins no laughter, nor shoots the breeze,  
nor whistles, nor hums, nor sings,  
But he's flown more planes than any man  
who ever wore pilot's wings...  
...has Elmer!



He's an old, old hand, as old hands go  
in a young man's game today,  
For he circled the globe in 'Thirty-three  
with Post in the Winnie Mae—  
He's an Army man, he's a Navy man,  
and he flies with the R.A.F.,  
And the Yankees say, and the British say  
of pilots, he's the best...  
...is Elmer!



Often when bombers have levelled off  
for the last tense bombing runs,

And the bomb-bay doors are opened wide,  
and the gunners man the guns,  
When the flak comes up as the bombs  
go down, and the target zone is clear,  
Then who is the pilot who holds the course  
set by the bombardier...?

*It's Elmer!*



He can hold a plane on a chosen course  
while the crewmen rest or sleep,  
He can level off for a landing glide,  
or bank her sharp and steep—  
He can spiral up, he can spiral down,  
or hold her level and true—  
His hydraulic muscles never tire  
the way human muscles do...

*...not Elmer's!*



And so bombing, transport, and cargo  
planes, take Elmer on every flight  
To spare the pilot and rest the crew  
for emergency, storm, or fight—

He needs no rest, for he never gets tired,  
being only a cold machine,  
Just wheels and wires and gears and cogs,  
with brackets and stuff between...  
...is Elmer!



He wears no medals, he holds no rank.  
Why should he? He cannot feel  
The courage that flares in time of need  
for he's only alloy and steel!  
So when *nerve* is needed, the bombardier,  
the pilots, the gunners, too,  
The navigator, and all the rest,  
are the boys who pull her through...  
...NOT Elmer!

## SPERRY

GYROSCOPE COMPANY, INC.

is proud to be manufacturing the  
famous Sperry Gyropilot for the  
Armed Forces of the United  
Nations.



Brooklyn, N. Y.  
Division of Sperry Corporation

• Reprints of this poem — suitable for  
framing, with signature removed — may  
be obtained without charge by writing  
the Sperry Gyroscope Company.

# Smoking 'Em Out!



Copyright 1943—Philco Corporation

ONE of the factors that qualified Philco so well for the battle of production was its background of research and development in the field of television. For fifteen years before the war, Philco engineers had devoted millions of dollars to the progress of the science of television. Their pioneer developments for improving the clarity, sharpness and detail of the television picture have today become the accepted standards of the industry. The Philco television station in Philadelphia, too, has been a rich laboratory of experience for the advance of the principles of television transmission.

*C. G. Werner makes this contribution to the series being drawn for Philco by America's leading editorial cartoonists depicting the significance of America's productive might. While available, a full size reproduction of the original drawing will be sent, free, on request to Philco Corporation, Philadelphia, Pa. Ask for Cartoon No. 55NA.*

So Philco brought to the battle of production more than its manufacturing skill and experience as the world's largest radio manufacturer. Its scientists, laboratories and years of radio and television research were ready to serve the nation at war. Today, Philco engineers are at work night and day on urgent and vital projects in the realm of research and development work in the field of electronics. With the dawn of peace, their contributions to Victory will usher in a new age of comfort, convenience and entertainment for the homes of America.

## PHILCO CORPORATION



Philco Men and Women are among the first to fly the Army-Navy "E" Flag with White Star

OUR WAR PRODUCTION PLEDGE:  
MORE • BETTER • SOONER

RADIOS, PHONOGRAPHS, REFRIGERATORS,  
AIR CONDITIONERS, RADIO TUBES AND  
PARTS ★ ★ INDUSTRIAL STORAGE BATTERIES

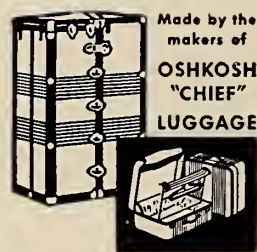
**BUY WAR BONDS AND STAMPS**

LISTEN TO  
"OUR SECRET WEAPON"

Hear Rex Stout expose Axis lies and propaganda over your Columbia station every Friday evening. See your local newspaper for time and station. Hear the Truth!



# OSHKOSH



*Seapack*  
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*made expressly for*

**NAVAL AVIATION CADETS AND OFFICERS**

●  
*Oshkosh Trunks & Luggage*

*Oshkosh, Wisconsin*

*U. S. A.*

# THE NAVAL AVIATION CADET TRAINING PROGRAM . . . 1943

The Naval Aviation Cadet Training Program, designed to produce fighting flying officers in the Navy and Marine Corps is similar throughout most of its stages in that the training may be divided broadly into the following categories:

1. Flight; 2. Ground School; 3. Military; 4. Physical Training. Alike in these general aspects, the program differs in its various stages.

There is no actual flying in tarmac training, at the Flight Preparatory Schools or at the Pre-Flight Schools. With the exception of flight at these three stages, the four general categories listed above obtain throughout the cadet training program.

All cadets take the same training until they complete Pre-Flight School. At that time the majority of cadets goes into heavier-than-air training, but a sizable number applies and is selected for lighter-than-air training.

If a cadet is training to fly planes, he goes first to primary, then to intermediate (where he wins his wings) and finally to operational training. If the cadet is training to fly blimps he takes primary, then advanced and finally operational training. The heavier-than-air training is conducted at more than 25 stations from coast to coast while the lighter-than-air training is carried on at Lakehurst, N. J., and Moffett Field, California.

Many airplane pilots are commissioned in the Marine Corps Reserve although the majority are commissioned in the Naval Reserve. All aviators (airship) are commissioned in the Naval Reserve.



New-comer Bill Caldwell of Altoona, Penna., recently enlisted Naval Aviation Cadet, visits with old-timer Chief Bill Garniss and learns something about the training which lies ahead of him. Old Bill tells young Bill that the course which he will take looks somewhat as follows:



Tarmac Training



Flight Preparatory



C. A. A. War Training Service



Pre-Flight



Primary Heavier-Than-Air



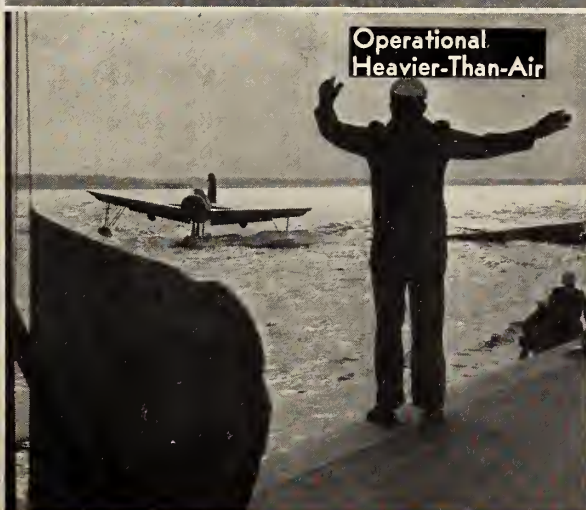
Primary Lighter-Than-Air



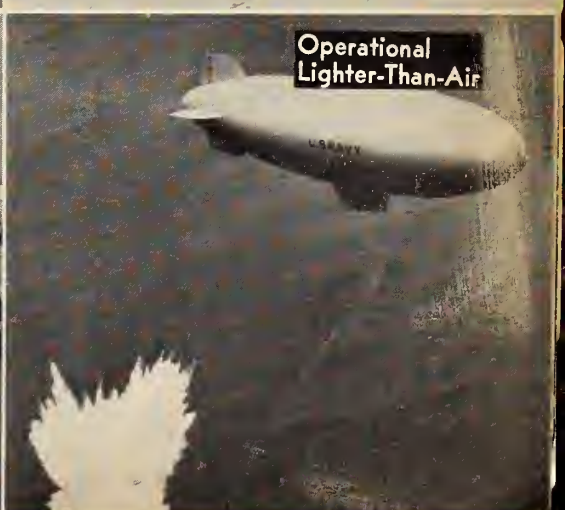
Intermediate Heavier-Than-Air



Advanced Lighter-Than-Air



Operational Heavier-Than-Air



Operational Lighter-Than-Air

## OPPORTUNITY KNOCKS



Typical of the thousands of American youths who have applied for Naval Aviation pilot training since the outbreak of the war, is Mark A. Weber, 21-year-old high school graduate of Two Rivers, Wisconsin. Here serious, determined Mark takes the first step toward becoming a Navy flier as he visits the V-5 Procurement Office of the Naval Aviation Cadet Selection Board at Chicago, Illinois.

## NAVAL AVIATION CADET SELECTION BOARDS HAVE OPENED DOOR TO SUPERB EDUCATION FOR THOSE CHOSEN FOR V-5 TRAINING

The runway to Naval Aviation is the Cadet Selection Board. Located in fourteen metropolitan centers, the Boards are charged with the responsibility of selecting good candidates for Naval Aviation training. The staff of the Selection Board consists of several officers who interview the cadets, medical officers who give physical examinations, plus a number of yeomen and other enlisted personnel who aid in processing the papers.

When a candidate applies for admission to Naval Aviation he submits his application paper and then goes through a preliminary interview with an officer who checks the various papers necessary for purposes of information.

The cadet then takes his preliminary physical examination and if he passes it in a satisfactory manner, takes several mental tests. Two standardized tests must be passed. One of these is a test of general mental competence of the type used in the services for the past twenty-five years. The other is designed to measure the cadet's ability to deal with familiar mechanical situations and occurrences of every day life. The Navy uses the tests to obtain the largest possible portion of candidates who will qualify in the shortest time for their Navy wings.

After the mental tests are given a complete Navy flight physical examination is conducted.

Then the cadet is interviewed by three line officers and if he satisfies the officers that he is qualified for admission to Naval Aviation Cadet Training his enlistment papers are typed up and he is sworn into the Navy. First indication that a cadet is in is the V-5 pin. This pin has deep significance to those who wear it.

Since cadets who are now entering the Navy are much younger than those who were entering a couple of years ago, it is only natural that many of them do not have training in higher mathematics and other subjects essential to success in navigation. Thus, Navy schooling is more necessary than previously. That is one of the reasons why several of the new stages of training have been established. Another reason is to take up the back log of cadets in order that those who are accepted can get into the service more rapidly. Some of the cadets are sent now to Tarmac training. Others go to Naval Flight Preparatory Schools.

## IN THE BEGINNING



## WELCOME ABOARD

★

V

★

5

★



He steps to the reception desk, where he is welcomed by a board member. After answering questions to determine his eligibility for V-5, he receives the necessary application forms.

Young Mark Weber meets a group of eager, red-blooded youths already patiently awaiting their turn in the processing line that will take them through their V-5 examinations.

Filling out the application forms is next and Mark Weber joins James J. Knofsky, 21, 5423 S. Wolcott Ave., Chicago (left) and Richard D. Egeland, 19, 4222 N. Ridgeway Ave., Chicago, (center) in recording the essential information.

## PENMAN FOR A DAY



## WHY AND WHEREFORE



## THE EYES HAVE IT

A preliminary interview brings out Mark Weber's family background, his interests, his ambition to be a fighter pilot for the Navy, and other pertinent information.

After successfully passing the mental and physical examinations, Mark Weber goes before a three-officer interviewing board. They thoroughly examine Weber's potentialities of becoming a top-notch Naval officer and then decide . . . he has it!



Next stop for Mark Weber is his first physical examination, and he comes upon a line of hopeful applicants awaiting to learn whether their eyes are sufficiently sharp to meet rigid requirements.

## HE WILL DO



## COMPLETE BIOGRAPHICAL BACKGROUND AIDS OFFICERS IN SELECTING CANDIDATES FOR NAVAL AVIATION TRAINING

Officers at the Cadet Selection Boards who judge the merits of those who are applying for aviation training do not rely entirely upon their own opinions of a young man. They supplement this with extensive biographical material and other documentary data. Written material sometimes tells a story which no conversations could explain thoroughly. The completeness of the papers which must be filled out by candidates for cadet training is such that a fairly good picture of each boy is presented in his application papers, particularly when considered in the light of his interviews.

The information which the cadet must supply includes: (a) birth certificate, properly executed, (b) evidence of citizenship if not native born, (c) transcript of college record, (d) in the absence of a college record, transcript of high school record, (e) three letters of recommendation from responsible citizens, (f) a resume of not less than fifty words in the applicant's own handwriting covering all occupational and other experience, including military service or training, (g) written consent of applicant's parents or guardian to enlist for aviation training in the U. S. Naval Reserve (if the cadet is 17 years of age), (h) two photographs, head and shoulders only, size 2½ x 2½ inches, (i) applicants who have had previous military or Naval service are required to present discharge certificate or certificate in lieu of discharge.

★

V

★

5

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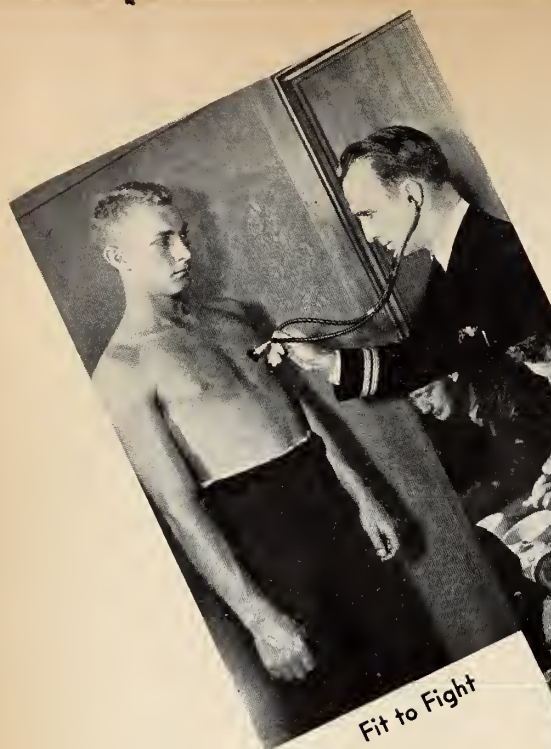
## YOU'RE IN



The big moment arrives! Mark A. Weber is sworn in by Lt. Comdr. (now Comdr.) Carl G. Olson, Officer in Charge of the Naval Aviation Cadet Selection Board, Chicago, for the Navy's \$27,000 pilot training course that will lead him to his Wings of Gold, an officer's commission, and the chance to fly a combat plane for the Navy or Marine Corps.

# TARMAC TRAINING

Editor's note: Diaries are not kept in the Navy because it is against regulations to do so. The material on this page and on similar pages which follow is not actually taken from diaries because there is no such source. It is set up in this style merely to make it more interesting and readable than it might be otherwise.



Fit to Fight



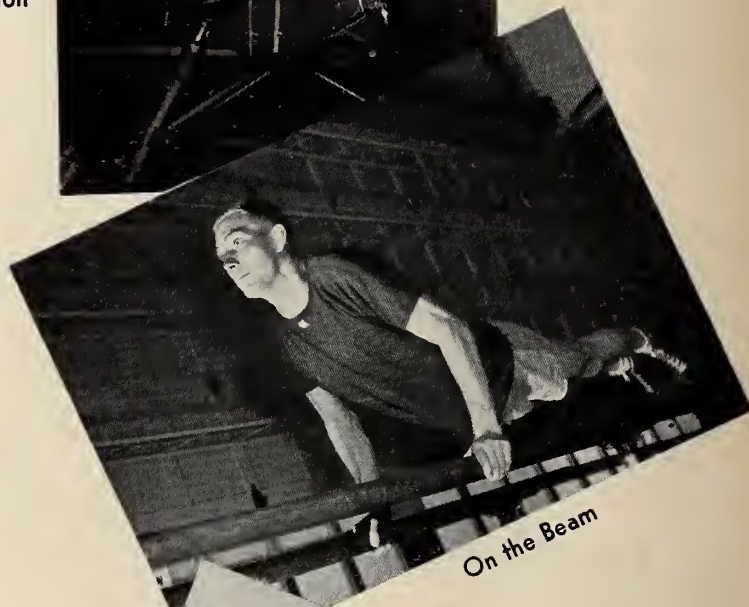
Come and Get It

Newest stage in the program for Naval Aviation Cadets is Tarmac Training. Since this step (now the initial station for many cadets) has been adopted for only a few months, most of the cadets now in training have not served as Tarmacs.

In this new phase, the cadets work on plane engines etc. and familiarize themselves with the workings of the ships which they eventually will fly.

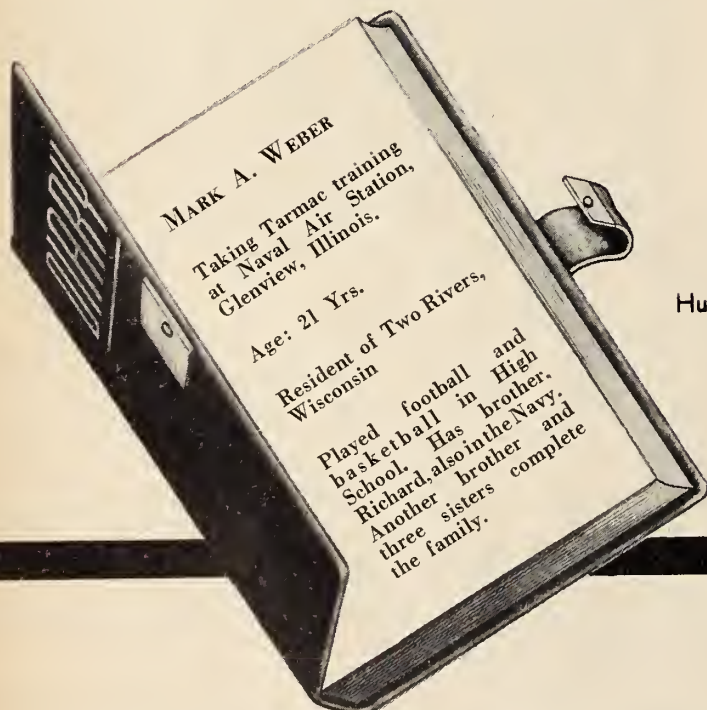
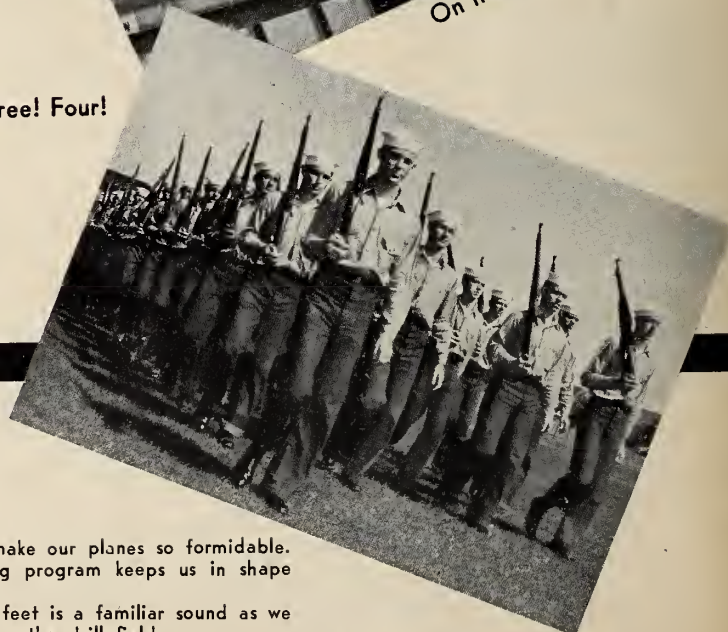
The term "Tarmac" is a carry-over from World War I. It had its origin in England where "grease monkeys" worked on the planes which were located on runways made of tar and macadam.

Inside Information



On the Beam

Hut! Two! Three! Four!



MARK A. WEBER

Taking Tarmac training  
at Naval Air Station,  
Glenview, Illinois.

Age: 21 Yrs.

Resident of Two Rivers,  
Wisconsin

Played football and  
basketball in High  
School. Has brother,  
Richard, also in the Navy.  
Another brother and  
three sisters complete  
the family.

1. We take a medical exam at the beginning of training.
2. Chow at Glenview is excellent and we enjoy every meal.
3. We receive a good indoctrination in power plants and

- thus learn what helps to make our planes so formidable.
4. A fine physical training program keeps us in shape at all times.
5. The tread of marching feet is a familiar sound as we spend considerable time on the drill field.



2500

NAVAL FLIGHT PREPARATORY SCHOOLS

Throughout the nation Naval aviation cadets helped to relieve the acute labor shortage by aiding farmers in harvesting their crops.



Navigation rates a number one priority on the study list. Here a cadet at the N. F. P. S. at Williams ponders over a perplexing problem.

In the Prep School at Penn (as at the other schools) marching consumes a good part of the day.

## NAVAL FLIGHT PREPARATORY SCHOOLS

**L**OCATED on the campuses of colleges and universities throughout the nation, Naval Flight Preparatory Schools represent on their faculty a fine blending of military and civilian leadership, pooling resources to get an important job accomplished. The colleges supply facilities and a large part of the instructional staffs. The Navy supplies cadets, some instructors and the military organization necessary to conduct the training program.

Since the Flight Preparatory Schools represent the first step in the training for many of the cadets,\* it is part of the mission of the schools to indoctrinate the students rapidly into the customs and traditions of the Navy. They are civilians no longer and they quickly learn the Navy way of doing things.

Some of the schools are located in big cities. The University of Pennsylvania Flight Preparatory School, for example, is in the heart of Philadelphia (population approximately two million people). Others are located in small towns, for example, the school at Colgate University in Hamilton, New York (population 1700). Some are on the campuses of technical schools, such as California Polytech at San Luis Obispo, California. Others are at

institutes where educational subjects receive more attention, such as Murray State Teachers College in Kentucky. Several are located on the campuses of small colleges, like Monmouth, Illinois, and others at large state universities, like the University of Texas.

As diverse as the cadets who attend them, the various Flight Preparatory Schools are exactly alike in their mission and they are all doing a good job in fulfilling their objectives.

The courses emphasize fundamental subjects, mastery of which is essential to success in the training which is to follow. Most important subject at Flight Prep is navigation and the accent is on the basic tenets of this science. Other subjects include mathematics, physics, aerology, theory of flight, communications and recognition. A well rounded military and athletic program supplements the academic training. Naval officers handle administration, discipline and military arts and teach some of the courses. Civilian instructors teach the majority of subjects at the Flight Preparatory Schools. The courses at Flight Preparatory Schools last approximately fifteen weeks.

At many schools there are other military units. Yet none of them has more esprit de corps than the V-5 cadets. A few of their activities are pictured on this page.

\*Some go to Tarmac Training

Soccer is a popular sport and a good training device for it enables cadets to control their own weight and the ball at the same time. Flight Prep cadets go in for the rugged game in a big way.



(Above) There is time for recreation. (Below) A cadet's locker must be ship-shape.



Civilians today—marching men tomorrow.



# NAVAL FLIGHT PREPARATORY SCHOOL



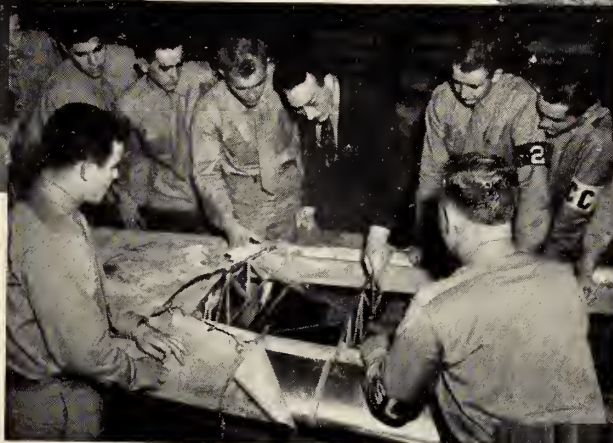
Once Over Lightly



Neither Sweet Nor Low

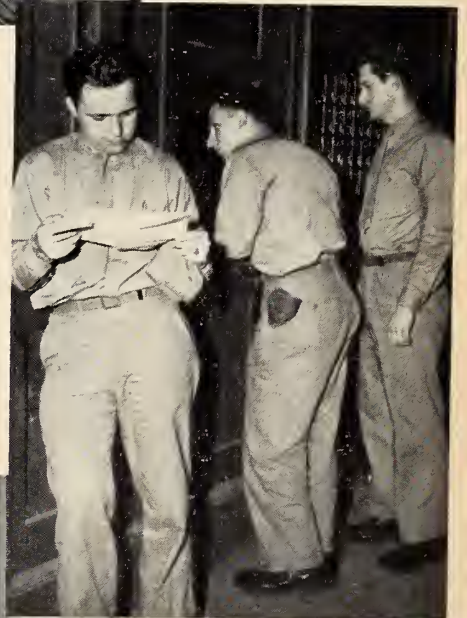


Journey's End

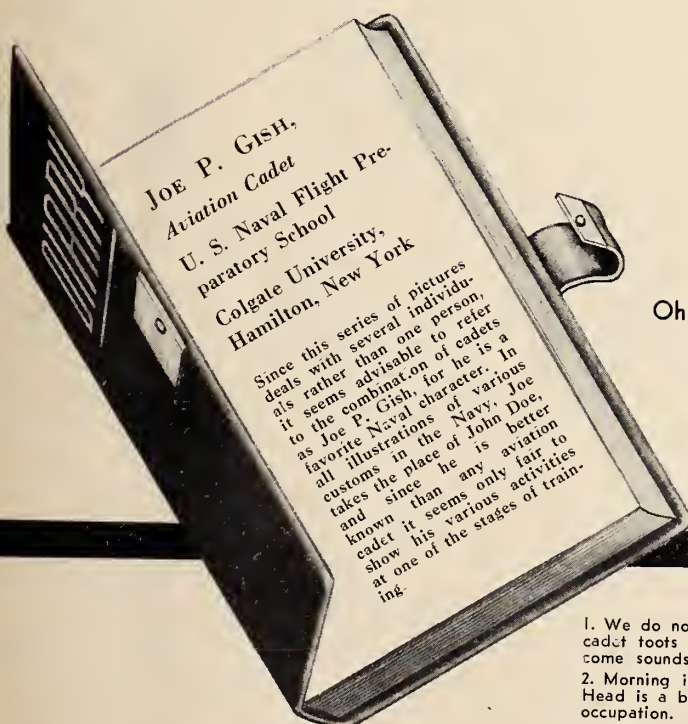


A Little Inside Dope

Home Town Scuttlebutt



Oh! Oh! No Liberty



1. We do not wonder who gets the bugler up, for this cadet toots a trumpet but it still brings forth unwelcome sounds early in the morning.
2. Morning inspection demands neat appearance. The Head is a busy place as we make ready for the day's occupation.
3. Ground school activities are of paramount importance. Accent is on navigation but we have considerable work in other subjects. Here we learn about the "rib" structure of a Cub wing.

4. There is nothing like mail from home. The line at the P. O. looks like the crowd waiting to get World Series tickets, eager, hopeful and anxious.
5. There is no expanse of land anywhere which can test men more than that territory which we so fondly call "Agony Hill."
6. When we stray off the path we sometimes have to visit the Discipline Office and one never knows how he may be penalized for an infraction of the rules.



C.A.A. WAR TRAINING SERVICE SCHOOLS

## C. A. A. WAR TRAINING SERVICE SCHOOLS

**C**ADETS who satisfactorily complete their Flight Preparatory School courses continue on to a C. A. A. War Training Service (WTS) School for twelve weeks of additional training. The WTS schools are operated in conjunction with various colleges throughout the country and the flight training is conducted at airports or as close to the school as possible.

In these schools college faculty instruct the cadets in the ground school subjects of navigation, aerology, communications, etc., while Naval personnel handle the military aspects, check flight training at various stages, and supervise the continuation of the Physical Training Program. These schools are conducted under Navy regulations and the discipline is the same as in other stages of training.

Approximately one-half of the day is spent at the airport where the cadets receive their first instruction in flying and are taught by licensed Civil Aeronautics Administration instructors, while the other half of the day is devoted to ground school instruction.

Flight training is divided into two stages, elementary and intermediate. In the first stage simple maneuvers are taught while in the second stage more advanced instruction is offered.

In elementary training the majority of the Schools use Piper Cubs, called "Gremlins," "Baby Carriages," "Parachutes with a forward thrust," etc., by the cadets.

A high-wing monoplane, the Cub has an enclosed cockpit with two-place tandem seating. Some airports use Aeroncas, Taylorcrafts, Interstates, Porterfields, Luscombes, and other light aircraft.

After eight hours of instruction most cadets are ready to solo. If it appears that a cadet will not be ready to solo when he should, he is given a check ride with the chief pilot who suggests methods of overcoming various difficulties. With few exceptions cadets solo in the required time. It is interesting to note that veteran aviators who operate most of the WTS flight schools are almost unanimous in their belief that the first solo flight is the safest. When the cadet is ready to fly alone he is more cautious than at any other time in his career. Accidents at this stage are rare and are much less likely than at any other stage of solo flying.

After successful completion of eight weeks of elementary training the cadet begins four weeks of intermediate training. In many instances he continues to fly a Cub. At some stations he will take his training in a Waco, Fairchild, or similar planes of greater horsepower than those used in elementary. These afford the cadet experience in handling heavier and faster craft and it sometimes happens that a cadet who can fly a light plane without any trouble has considerable difficulty in mastering the heavier ship.

Upon completion of the required check out in flying plus satisfactory marks in ground school subjects, the cadet moves on to Pre-Flight training.

1. From dawn to dusk cadets at C.A.A. War Training Service Schools march to their activities. This picture was taken at Central Michigan College at Mt. Pleasant, Mich.

2. This is an unposed picture snapped by a photographer at the C.A.A. War Training Service School at Cornell University. The occasion was a final examination in navigation. Cadet Wilbur James Bevin of Rochester, New York, is in the right foreground.

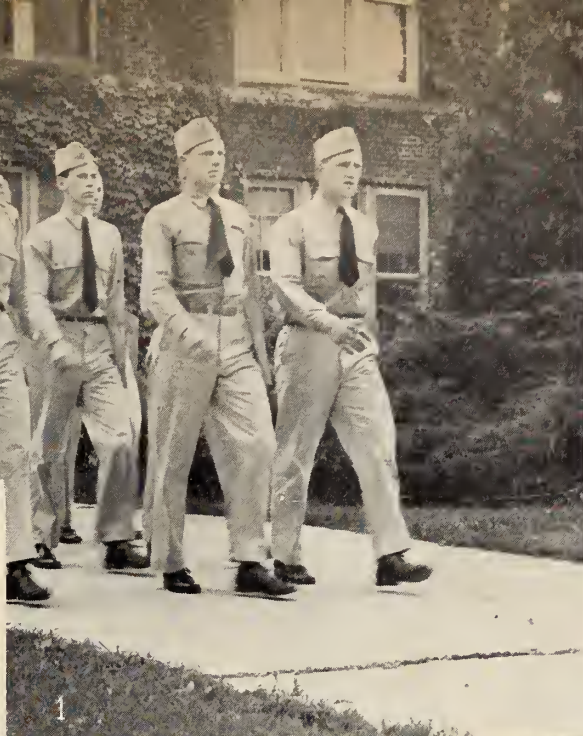
3. Dr. Warren K. Green, well known member of Amherst College faculty, assists Cadet Harley G. Flinn with navigation problem at Amherst C.A.A. War Training Service School.

4. Line inspection is made before each flight at each school. Scene of this photograph is the C.A.A. War Training Service Muhlenberg-Moravian School at Bethlehem, Pa.

5. A cadet at the C.A.A. War Training Service School at Keene, N. H., Teachers College smiles as he receives the word from his instructor to take over the controls. They are flying a dual control Cub.

6. Initiation after the first solo is a regular ritual in flying circles. Cadet Thomas Emmons of Detroit has just soloed at Kalamazoo Airport and thus he does not mind the dunking too much.

7. Volley ball is a popular phase of the physical training program at all schools. This picture was snapped by faculty member Dr. Oran Stanley of Colgate University.



# C. A. A. - WAR TRAINING SERVICE SCHOOL.



This Is What Makes It Go



Sign on the Dotted Line



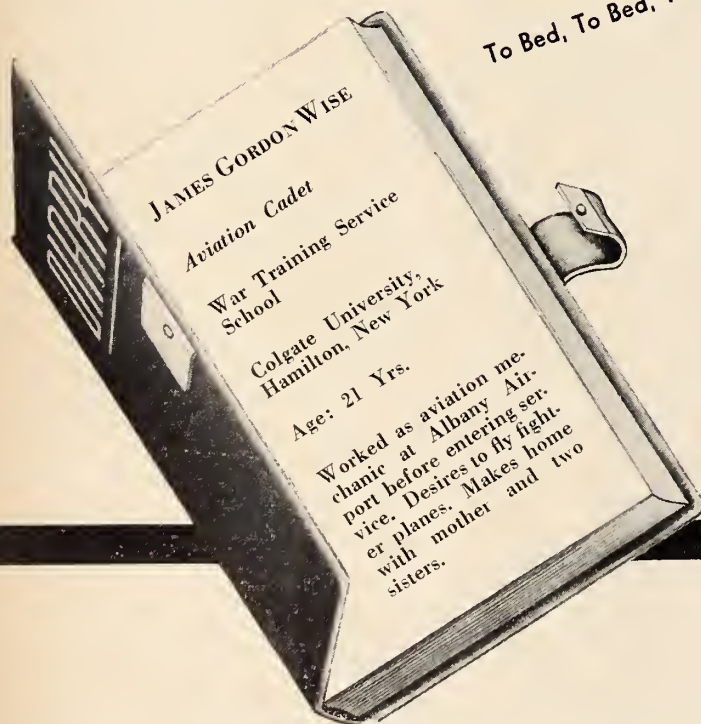
This Is Really It



To Bed, To Bed, You Sleepy-head



We Made It



Valet Service



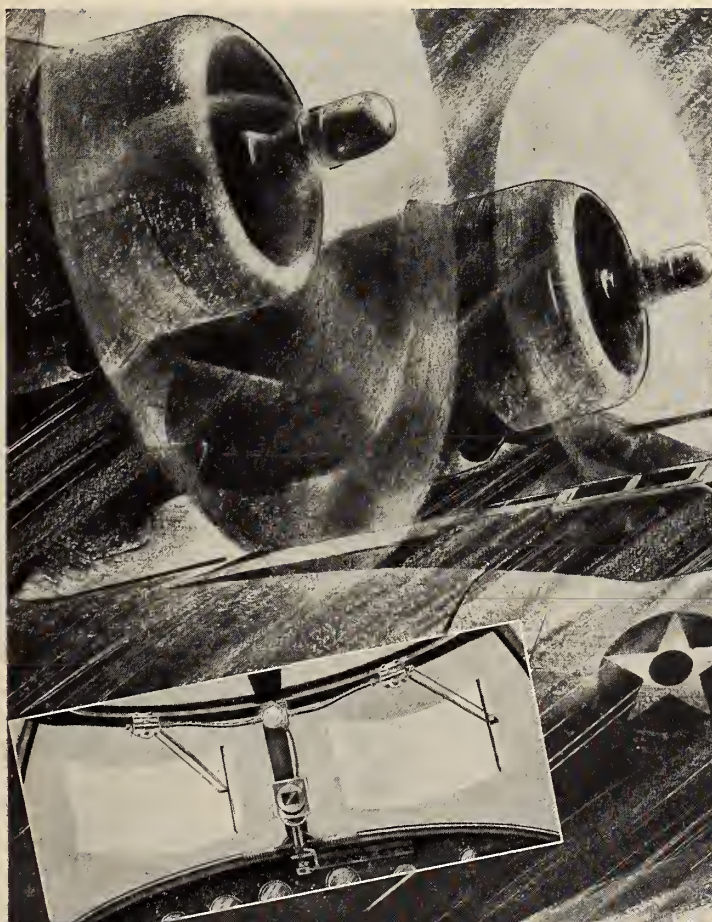
1. In our first day at the airport our instructor gave us a word picture of the ship in its component parts and in its entirety.
2. We signed clearance sheets which carried the information that: 1. A complete line inspection had been made; 2. We would not fly over restricted areas.
3. The instructor prepared us for our first take-off by explaining the initial day's flight plan.

4. Our first flight completed, we learned how to put our "baby" to bed.
5. We cannot remember any occasion which gave us the thrill we experienced today when we soloed for the first time. The photographer snapped this picture just as we got out of the plane.
6. At the conclusion of each flight we guide the plane to the hangar in order to prevent it from over-turning.

# "FINER FUELS

## FOR THE AGE OF FLIGHT"

First to produce 100-octane aviation gasoline in commercial quantities, Shell scientists also had a major part in developing the Alkylation Process which resulted in more aviation gasoline from a barrel of crude. And just last year they again increased the yield of 100-octane fuel with a new and plentiful "stepper-upper." . . . Achievements that have resulted in "Finer Fuels for the Age of Flight."



## *Eyes of the Navy*

Navy Patrol Bombers are equipped to carry on in good weather and bad. The Marquette Windshield Wiper is a vital part of that equipment, assuring clear sight through rain and sleet.

*The* **Marquette** METAL PRODUCTS CO.  
CLEVELAND 10, OHIO

**MARQUETTE ALL-WEATHER WINDSHIELD WIPER**



**CAPTAIN CHARLES E. SMITH, USN**  
**COMMANDING OFFICER**

# U.S. NAVY PRE-FLIGHT SCHOOL ATHENS, GEORGIA

**LIEUT. COMDR. RALPH W. BURLEIGH, USNR**  
**EXECUTIVE OFFICER**

**LIEUT. COMDR. W. MADISON BELL, USNR**  
**ATHLETIC DIRECTOR**

# Activities At Georgia Pre-Flight Indicate Nation Doing Right Well On Subject Of Sports For War's Sake

BY ROMNEY—WHEELER

Regional Sports Editor, The Associated Press, Atlanta, Georgia

ATHENS, GA. — For a nation brought up on sport for sport's sake, I think we're doing right well on the subject of sports for war's sake. And if we need a symposium on it, I can think of no one better qualified to lead it than the men who head the Navy's Pre-Flight Athletic Program.

Off-hand, I can't recollect which of the Axis partners said Americans were soft—and it doesn't matter much. Perhaps a lot of our boys were soft. But not now. At least, not those who were fortunate enough to win an assignment to one of the Navy's big Pre-Flight Schools.

The athletic program is tough. So is war. The Navy's future airmen, when they finish pre-flight training, are as tough or tougher than the enemy they'll meet. That's why a lot of them will be coming home—a lot more than would have come home had they done their training the easy way.

If anyone needed an excuse for an athletic program, that's it. I can't think of a better one.

Primary maxim of the Pre-Flight Athletic Program is summed up grimly, thus: "No sport for sport's sake. The only excuse for any sport in this program is exclusively what it contributes to make a better fighting man."

It has been my pleasure to visit the Pre-Flight School at Athens, Georgia. Like everyone else, who has seen that fine station, I came away impressed with the high quality of accomplishment as exemplified in the physical and mental improvement of the cadets who trained there. It is no difficult assignment to pick out the newly-entered platoon as against those which have been at Athens for several weeks. The proof of the pudding is in every activity in which you see the cadets. This story deals primarily with the Pre-Flight School at Athens, but it might just as easily apply to any of the other Pre-

Flight stations. Men who have visited all five tell me that there is great similarity throughout the training programs at the different Pre-Flight Schools.

I think the unique thing about the Program is that physical training—or more exactly, physical toughening—counts equally with academic and military grades in a cadet's final, over-all mark and his final standing in the class with which he graduates. The laggard doesn't last.

Every cadet competes—and I mean exactly that—in boxing, soccer, wrestling, hand to hand combat, swimming, gymnastics, tumbling, military track, basketball and football. There are no bench-warmers. There is no scrub team that sees 15 minutes of action on Tuesdays and Thursdays. Every boy goes all the way. An incentive for superior performance is provided in regimental championships every other Sunday.

These regimental finals produce a quality of play and a keenness of competition comparable to the average in-

tercollegiate athletics — barring perhaps the super-precision performance of big league football teams, or the record-breaking track marks of scholarship athletes.

Co-ordination of brain and muscles — hair-trigger co-ordination. That's what it takes for superior fliers. That's what the Pre-Flight Schools are producing, with outstanding instructors drawn from the best-qualified men in the high school and college coaching profession. That's why American Navy fliers are knocking down five, eight, a dozen or more enemy planes for every one of their own men lost. That's why American Navy fliers are coming home.

But don't get the idea the Pre-Flight Schools are just mighty muscle-factories.

Academic and military arts subjects, which must be mastered by all cadets, include military drill, aerology, ordnance and gunnery, seamanship, first-aid, self-preservation, communications (such as radio, semaphore and blinker), navigation, recognition of aircraft and surface craft, and Essentials of Naval Service. Again, outstanding professional teachers and military experts are in charge of the cadet classes.

Rounding out the Program, and giving the public a chance to see a few of these future fighters in action, is the varsity athletic program, embracing football, basketball, track and boxing. There the top-flight men get a chance, briefly, to match their strength and wits and ability with the best men left in intercollegiate sport.

But never lose sight of the Pre-Flights' basic intra-regimental sports. Never lose sight of that slogan, "Sports for War's sake."

The Axis coined the phrase: "Live Dangerously!"

But I'll take the Navy Flyers.



# U. S. NAVY PRE-FLIGHT SCHOOL ATHENS, GEORGIA.

You've Got to Stand Up



You've Got to Get Up



You've Got to Clean Up



You've Got to Navigate



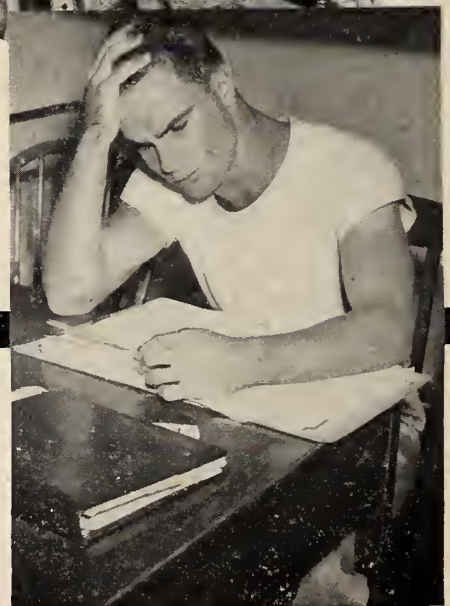
You've Got to Play



And You've Got to Eat



You've Got to Study



PAUL MARTIN  
BOYER,  
Aviation Cadet  
U. S. Navy Pre-Flight  
School  
Athens, Georgia

Age: 21 Yrs.  
Height: 5'9 1/2"  
Weight: 157 lbs.

All around athlete at  
Southeast High School, Has  
Memphis, Tennessee. Has  
one brother, Blake Boyer, in  
Army Air Forces.

1. It is merely a recording of a bugle call but you can't say, "Wait a minute" when it's time to get up in the morning.
2. There is time enough for a good clean shave providing that not a second is wasted.
3. The long distances between buildings afford good opportunity for us to march to our heart's content—and then some.
4. Knowledge of celestial navigation may be the thread

- on which a flyer's life may hang.
5. Sports for all is no idle phrase at a Pre-Flight School. Football is a popular activity with everyone here.
6. There is a lot of homework to do, and if you fail to do it you will not last long here.
7. We have good food and plenty of it. Our meals contain about twice as many calories as any food served at pre-war football training tables.



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Aircraft and  
Automotive Parts

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Products**

## Continental Powered Boeing Trainers



*for*  
**PERU  
GREAT BRITAIN  
CHINA  
U. S. NAVY  
U. S. AIR CORPS**



**Continental Motors Corporation**  
*Aircraft Engine Division*  
MUSKEGON, MICHIGAN



## Production of Precision Aircraft Devices

**S**OLVING intricate production problems called for in the manufacture of high-precision aircraft devices is another contribution Foote Bros. Gear and Machine Corporation is making toward speeding the day of Victory.

Precision gears for reducers for azimuth and elevation control of guns in turrets in the B-17 bombers—gear assemblies to raise and lower the landing gear of the AT-21 trainers—cowl actuating jacks to operate ventilators on oil coolers on P-38 interceptors—all these devices call for light weight coupled with extreme precision.

Foote Bros. engineering experience and manufacturing "know-how" acquired in the production of precision gears in tremendous quantities for Pratt & Whitney aircraft engines assure the production of these special devices in the quantities required to meet the ever-increasing demand of our global air force.

After the war, the experience gained in the manufacture of such gears and devices promises American manufacturers a new era in the economical transmission of power.

FOOTE BROS. GEAR AND MACHINE CORPORATION  
5225 South Western Boulevard • Chicago, Illinois



**FOOTE BROS.**

*Better Power Transmission Through Better Gears*

SO SORRY PLEASE? NUTS!

TAKE THAT!

THE RIFLE RANGE OFFERS VERY FINE TRAINING

ZUK!

PINGO

SEMAPHORE IS AN IMPORTANT PART OF THE CADET'S TRAINING

GIVE 'EM 'L

COMMANDER JOHN P. CRAFF, USN (Ret)  
COMMANDING OFFICER

FOOTBALL ALWAYS TAKES A FORMIDABLE SPOT, IN ANY KIND OF A PHYSICAL TRAINING PROGRAM

FIRST AID

CADETS LEARN TO TAKE IT TOO

# U.S. NAVY PRE-FLIGHT SCHOOL CHAPEL HILL, N.C.

LIEUT. COMDR. JAMES P. RAUGH, USNR  
EXECUTIVE OFFICER

LIEUT. COMDR. BURTON INGWERSON, USNR  
DIRECTOR OF ATHLETICS

TRAMPOLINE PRACTICE MAKES THE CADET AIR-MINDED

A PRE-FLIGHT CADET'S DREAM

BEAR A HAND MATE!

WHEN DO WE EAT?

IT WASN'T LIKE THIS IN COLLEGE!

HEY WAIT!

FAMOUS COACHES AND ATHLETES RECEIVED THEIR INDOCTRINATION TRAINING HERE AT CHAPEL HILL

CADETS MUST LEARN TO SWIM WITH THEIR CLOTHES ON, AND CARRY A RIFLE AT THE SAME TIME

LABOR ENGINEERING IS VERY POPULAR

A VERY FINE COLORED BAND TOO!

AEROLOGY

ARRIVAL

2ND WEEK

3RD WEEK

8TH WEEK

DEPARTURE - OFF FOR PRIMARY TRAINING

# Naval Aviation Comes To Chapel Hill

## Value of Vigorous Contact Sports Proved in North Carolina

BY ARTHUR SIEGEL

Sports Editor, Boston Traveler

CHAPEL Hill was proud and enthusiastic. But Chapel Hill also was cautious and self-conscious. For, a year ago, Chapel Hill had its first class of Navy Aviation Pre-Flight Trainees, yet some of its inhabitants were fearful of the derision that already had guffawed "Supermen" at the staff and cadets there at North Carolina.

So short a time ago, Chapel Hill had been only the site of the University of North Carolina. For that matter, except for the residents of the Carolinas, the alumni of the University and, perhaps, a few neighbors, few knew just what Chapel Hill was. But Chapel Hill, or that part of the North Carolina campus that had been taken over by the Navy, was beginning to assume a new identity. It no longer was the town with the main street. It no longer merely was the place where the University of North Carolina was located. Chapel Hill was Navy Pre-Flight and was becoming familiar to millions. Not North Carolina Navy Aviation Pre-Flight, not anything formal. Just Chapel Hill and the visions of hundreds of Navy Aviation cadets marching everywhere with a cadence measured by the booming voices of fighting men of cadets being taught that there must be no fear and being so taught through the medium of a three-months' program of combat sports.

Pre-Flight Training was conceived in Washington and born in Annapolis, where the first instructors were indoctrinated. In the East Chapel Hill was the cradle and the nursery of Pre-Flight for the cadets from the Atlantic Seaboard.

Chapel Hill is better known to most of the officers in the Naval Aviation Physical Training Program than any other station. For it is here that hundreds of newly-commissioned officers come for their indoctrination, to learn about Pre-Flight and to extend the saga of Pre-Flight to the Seven Seas. Upon completion of their training they are scattered to distant points, but they will tell you that always they retain a place in their hearts for Chapel Hill—for this was their first Navy address . . . this was where they discovered that their coaching mannerisms of peace-time days might not be entirely adequate in handling their war-time duties . . . this was where they saw the worthwhileness of the entire program as they watched the improvement in the cadets from day to day and this was where they learned to be officers in the Navy and instructors in a program of which they are justifiably proud.

But that first year, even as now Chapel Hill was a place with a mission. There never was any doubt of the pur-



pose and the great service it was offering. But there were critics. There were those who thought calisthenics sufficient, with some boxing and wrestling added for spice. There were those conservatives who thought that Pre-Flight training was unnecessary because they had become flyers without that training. And the jeer of "Supermen" was all too audible, specially in the imagination. There were even whispers that these officers, the builders of Supermen, were merely parking in nice peaceful spots for the duration.

Chapel Hill—the Navy's Chapel Hill—wasn't beautiful a year ago. It was too new. There were too many evidences of new construction. The grass hadn't grown and the strawberry-blond soil of North Carolina pinked in the rays of the sun. But every bare spot was a signpost that Chapel Hill was creating something. The obstacle course, at which civilians gaped and then recoiled horrified when asked if they would like a test run . . . the fields where the hand-to-hand combat was being taught . . . the baseball field enhanced by big league style dugouts which were built by the cadets and the covered pavilion where the punching bags rattled and where the thumps of eager wrestlers boomed.

No cadet was asked to do any more than his instructor. Football was taught by men who could take a bruising, by men who had proved their physical fitness only a short time previously. Jimmy Crowley was the boss of football and he had some swell aides. In the swimming pool men were learning to swim who never knew how before and men who thought they knew

how to swim were learning how to swim wearing full equipment.

There wasn't any over-emphasis on any one thing. There were excellent military and academic programs to go hand in hand with the athletic activities. In fact anyone who has visited the station fail to be impressed with the military atmosphere that permeates the "Hill." Of all the lasting impressions that one gains from a stay at the Pre-Flight School none is more significant from a sports standpoint than that of cadets, hundreds of cadets, marching to all activities in strict military formation. Wearing the athletic gear of the sport in which they are about to compete the cadets march to the fields of play—and every cadet participates in every sport.

If there was any over emphasis in the complete program it was in a fervor to turn out air cadets who would not merely go out to battle, but would come back from battle because they had been schooled to know no fear, had been schooled to react quickly, had been schooled to be on the alert all the time, had been schooled to be aggressive, had been schooled to be disregarding of a physical limit of endurance.

The Captain at Chapel Hill was Commander O. O. Kessing, who wasted no time in announcing that his name was Scappy. Today he's Captain Kessing, out in the South Pacific and he's still Scappy. He was decorated only a few months ago. His executive officer was Commander John P. Graff, who today is the Captain at Chapel Hill. Crowley is in the South Pacific. So many have gone—to other schools, to other stations, to carriers, to air bases wherever a Navy flyer must be. Not many are left. Only a few, who preserve the tradition of Chapel Hill—for Pre-Flight training became a tradition in one short year. The fields no longer are bare. The soil is covered by grass. And the legends grow.

The critics have been silenced. Others saw and borrowed. The obstacle course is found on school and college fields. The spirit of aggressiveness, of hard play, of effervescent health, now is a common factor in the American life. For Chapel Hill has proved that the American youth are not, sardonically, Supermen, but boys and men who can win and are winning. From Australia to Alaska, the enemy has learned that much.

And may there still be a Chapel Hill when the war ends. For Chapel Hill does not merely mean a man without fear, a man who is the fittest survivor physically. Chapel Hill means an American who, in those three months, also learned loyalty to his country, love of his family and faith in his God.



# U. S. NAVY PRE-FLIGHT SCHOOL CHAPEL HILL, NORTH CAROLINA.



Smile Awhile



Solid Sender



Time Marches On



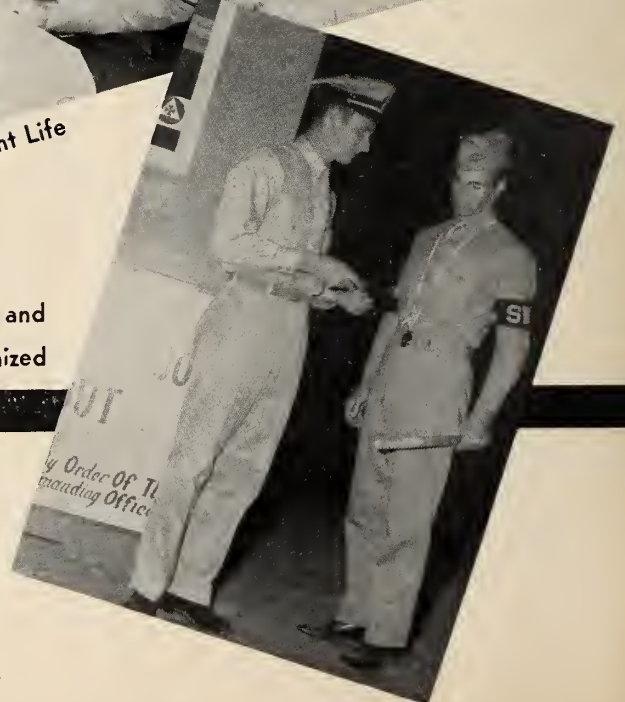
Down the Hatch



Night Life



Advance and  
Be Recognized



1. We like it here at the Hill.
2. We learn how to take and send code by wire and blinker systems.
3. Carrying on our back a pack which is 1/3 of our body weight, we step up and down monotonously in the pack test.
4. Our own competition completed for the day, we

- relax a bit as we watch some of our mates perform in a squadron contest.
5. Taps is at 2130 but before the bugle sounds we spend plenty of time at our books.
6. Some nights we stand sentry watch, but we are up at the regular time the following day and we participate in all activities.



U.S. NAVY PRE-FLIGHT SCHOOL  
CHAPEL HILL, N.C.

A black and white portrait of Brigadier General Henry L. Larson, USMC. He is a middle-aged man with short, dark hair, looking directly at the camera with a serious expression. He is wearing a light-colored military uniform jacket with two stars on the lapels and a large, ornate sash across his chest. He is seated at a desk, with his hands visible at the bottom of the frame, holding a pen. The background is dark and out of focus.

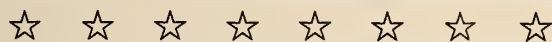
**BRIGADIER GENERAL HENRY L. LARSON, USMC,**  
Commanding General,  
Camp Lejeune, North Carolina

Brigadier General Henry L. Larson, USMC, Commanding General at Camp Lejeune, New River, North Carolina, is one of the most sportsminded officers in the Marine Corps.

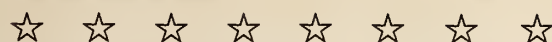
General Larson has a brilliant service record. Among his decorations are: the Legion of Honor Medal, Croix de Guerre with Palms, the Distinguished Service Medal of the Navy Department, the Navy Cross (twice), Silver Star (three times), the Presidential Medal of Merit, Nicaragua, and nine campaign ribbons.

# STATISTICS OF CAMP LEJEUNE FOOTBALL SQUAD

No.	Name	Pos.	Ht.	Wt.	Age	Home Town
53	Baklarz, John	T	6-3	230	26	Ecorse, Mich.
45	Beckwith, Bob	T	6-1	205	23	Hartford, Conn.
52	Behan, Charles	E	6-3½	205	23	Crystal Lake, Ill.
33	Bergman, Walter	B	6-2	192	23	Denver, Colo.
49	Bochynski, John	T	6-2½	210	24	Salem, Mass.
12	Brown, John	B	5-11	187	25	Hillside, N. J.
44	Bytsura, George	G	6	216	23	Freeland, Pa.
11	Cales, Bob	G	6	195	21	Ironton, Ohio
28	Constable, Matt	B	5-9½	175	22	Cleveland, Ohio
21	Cotton, Jim	B	6-2	200	28	Palestine, Texas
14	Dawson, Bill	E	6-1	185	24	Hudson, Ohio
48	Drulis, Chuck	G	5-10½	215	25	Girardville, Pa.
39	Dubenetzky, Paul	B	6-1	197	20	Brooklyn, N. Y.
19	Erickson, Stan	G	5-11	200	24	Pompton Lakes, N. J.
47	Fitch, Bob	E	6-1½	210	23	Indianapolis, Minn.
46	Fleming, Donn	B	6	185	24	Sioux City, Iowa
37	Ford, Ed	B	6	188	23	Minerva, Ohio
34	Fracassi, Gus	G	6	205	26	Niagara Falls, N. Y.
29	Giannini, Angelo	T	6	202	20	Monessen, Pa.
40	Greer, John	C	6-2	200	21	White Plains, N. Y.
30	Hall, Tom	B	6½	192	22	Benton Harbor, Mich.
25	Irby, Clarage	B	5-10	185	20	Haines City, Fla.
27	Kiesecker, Frank	B	5-9½	180	22	Hempstead, New York
16	Kleinhenz, Alex	B	6	185	22	Louisville, Ky.
15	Lanahan, John	C	6-1½	195	22	Jacksonville, Fla.
26	Lang, Allan	B	5-11	195	18	Cincinnati, Ohio
18	Leugo, Alex	G	6-1	193	23	Chicago, Ill.
50	Maliszewski, Henry	E	6	185	24	W. Natrona, Pa.
24	Mannino, Al	E	5-11	205	23	Westfield, N. J.
31	Meek, Jim	T	6-4	207	27	Gageby, Texas
56	Meyer, Bill	E	6-4½	200	18	N. Hampton, N. H.
57	Mitchell, Dick	E	6-1	195	20	Wilmington, Del.
35	Murphy, Ed	E	6-1	190	24	Lowell, Mass.
41	Murphy, Geo.	E	6	185	22	South Bend, Ind.
43	Murphy, Paul	C	6-1	185	21	Medford, Mass.
54	Neff, Bob	T	6-1½	218	23	Buckhannon, W. Va.
13	Peace, Bill	B	5-11	190	23	Henderson, N. C.
59	Phillips, Jim	B	6	205	19	Chicago, Ill.
17	Ponselle, Tom	G	5-9	200	24	Bridgeport, Conn.
38	Purucker, Gil	B	6	190	26	Sacramento, Calif.
51	Sabasteanski, Joe	C	6-2	205	22	Portland, Maine
22	Savage, Ray	B	5-11½	180	21	Evansville, Ind.
32	Sexton, Ed.	B	6	195	20	Hempstead, N. Y.
36	Speth, George	T	6-2	215	25	Buffalo, N. Y.
10	Stalnaker, R. W.	E	6	185	23	Akron, Ohio
42	Sullivan, Larry	T	6-2½	215	23	Brockton, Mass.
20	Terrell, Ray	B	6	182	24	Penns Grove, N. J.
58	Vaznelis, Albin	B	5-9	175	24	New Britain, Conn.



**BUY WAR  
BONDS**



## SAFEGUARD THE LIFEBLOOD OF AIRCRAFT

GAS AND OIL LINES ARE THE CIRCULATORY SYSTEM OF A PLANE.  
BE SURE WITH **PRECISION VALVES AND FITTINGS**—AN, AC AND NAF AS SPECIFIED BY THE ARMY AND NAVY AIR CORPS.

**THE DOLE VALVE COMPANY**

*Incorporated 1906*

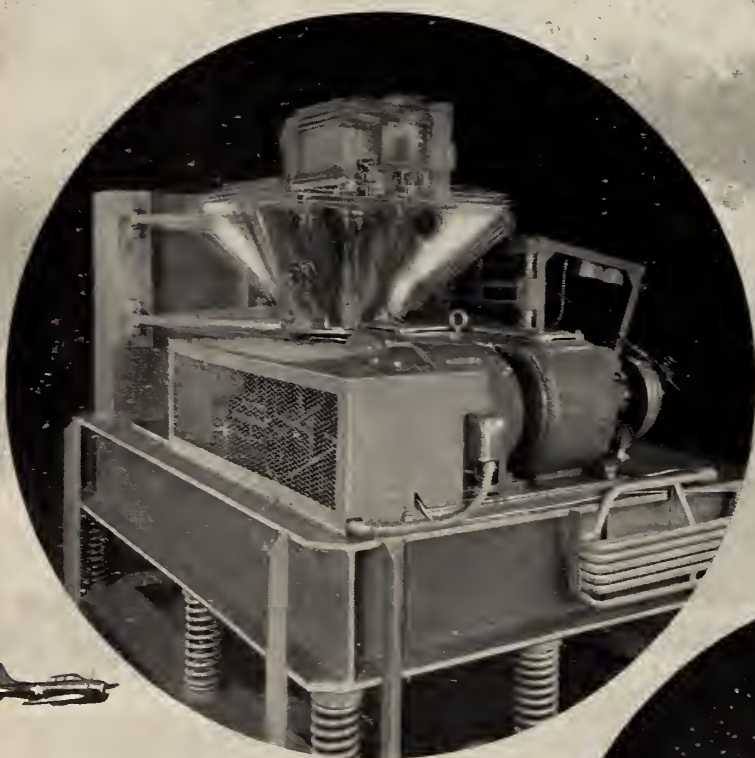
1923 Carroll Avenue

Chicago

BUY  
WAR  
BONDS

# RCA AVIATION RADIO

Efficiency and stamina proved by severe and exhaustive tests at every step of design and production



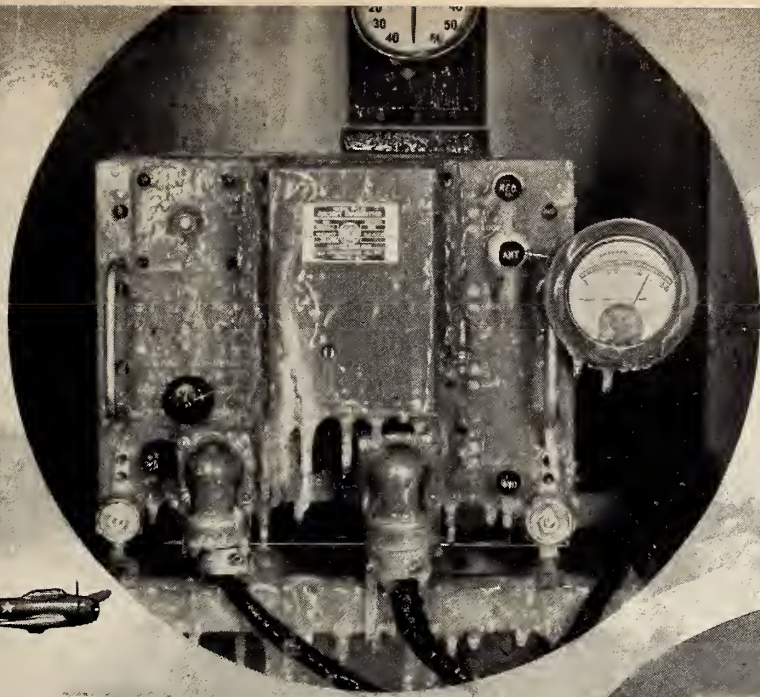
## SHAKE-DOWN TEST

Just as a naval vessel undergoes a shake-down cruise, RCA AVIATION RADIO equipment gets its "shake-down" cruise, right in the RCA laboratory. On the machine shown above, it is subjected to vibration up to 3,000 cycles a second. Vibration duplicating that of the smallest plane to the largest bomber—accelerations equivalent to ten gravities!

## ALTITUDE: 40,000 FEET

In this RCA plastic "altitude" chamber RCA AVIATION RADIO equipment is tested at low atmospheric pressures—checked for high altitude flashovers and leaks—scanned for tuning shifts and "breathing"—inspected for evidence of every kind having any possible bearing on its ability to give dependable service at any altitude.



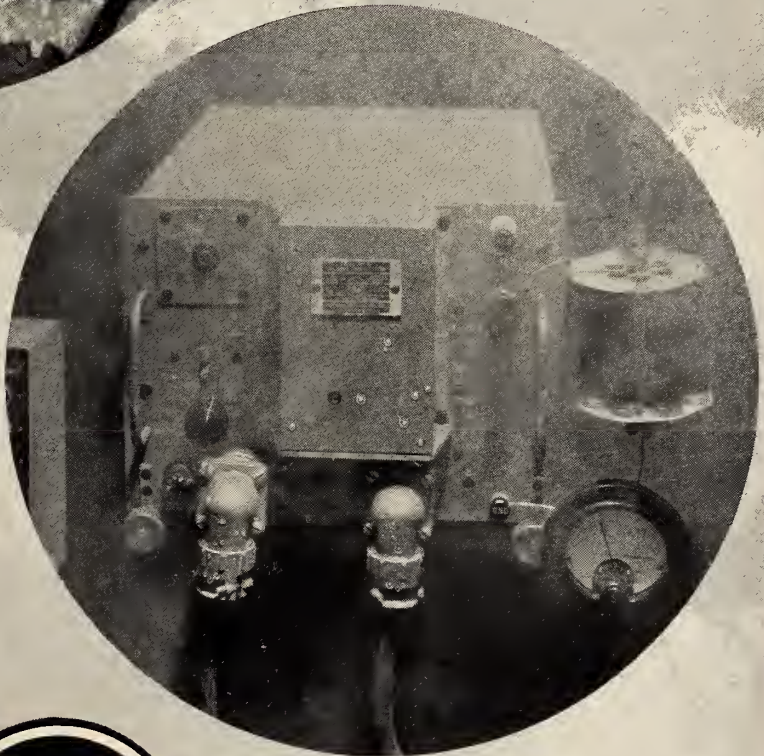


## ARCTIC REHEARSAL

It's cold at high altitudes—but aircraft radio must function despite frigid temperatures. That is why RCA AVIATION RADIO equipment is subjected to intense cold in RCA laboratory refrigeration chambers—cold well below the lowest stratospheric temperatures—as low as  $-76^{\circ}\text{F}$ .

## RCA "SWEAT ROOM"

In steaming jungle landing-fields and dispersal areas RCA AVIATION RADIO equipment must serve without failure or faltering—regardless of heat and humidity. The ability of RCA aircraft radio units to meet extreme requirements is assured by exposure to steam-saturated atmosphere at  $140^{\circ}\text{F}$ . and 95% humidity!



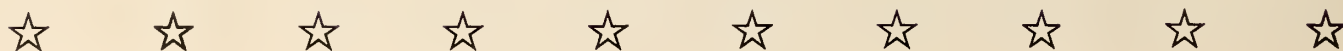
RCA VICTOR DIVISION

# RADIO CORPORATION OF AMERICA

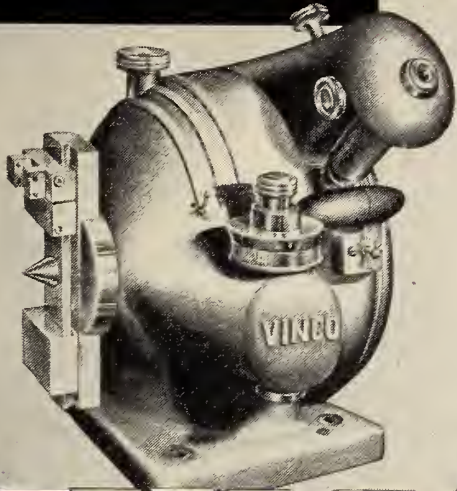
CAMDEN, NEW JERSEY

# STATISTICS OF NORTH CAROLINA PRE-FLIGHT FOOTBALL SQUAD

<i>No.</i>	<i>Name</i>	<i>Position</i>	<i>Home Town</i>	<i>Ht.</i>	<i>Wt.</i>	<i>Age</i>
38	Annis, Robert E.	B	Plattsburg, N. Y.	5-10	177	19
28	Berthold, Robert	B	South Charleston, W. Va.	5-8	150	20
15	Budciarowski, S.	B	Ipswich, Mass.	5-11	175	21
61	Budd, William	G	Camden, N. J.	5-10	195	22
67	Callahan, Robert	G	Rochester, N. Y.	5-10	179	19
33	Cleri, Victor	B	Lockport, N. Y.	5-8	155	21
64	Collins, John	G	Philadelphia, Pa.	5-8	176	23
47	Cook, Kenneth,	B	Harrisburg, Pa.	5-7	155	20
57	Copeland, George	C	Coatesville, Pa.	5-10	185	20
75	Douglas, James	T	Reedville, Va.	6-2	189	20
81	Duffy, James T.	E	Troy, N. Y.	6	180	19
79	Evangelista, P.	G	Liverpool, N. Y.	5-8	191	21
18	Gale, George	B	Mishawaka, Ind.	5-10	180	25
89	Golash, E.	E	Northampton, Mass.	5-9	180	20
69	Guzzo, Louis	G	West Hartford, Conn.	5-9	175	19
74	Hallsey, H. F.	T	Saco, Maine	6-1	180	22
43	Hannigan, William	B	Rockland, Mass.	5-6	160	23
16	Hare, Cecil	B	Spokane, Wash.	5-9	190	24
50	Hart, Paul	C	Folcroft, Pa.	5-11	180	20
45	Hecker, L. M.	B	Palmetto, Fla.	5-10	175	20
21	Hilliard, Harry	B	Sharpsburg, Pa.	5-10	169	20
11	Holbrook, William	B	East Lansing, Mich.	5-11	180	19
54	Holland, Eugene	C	Liberty, N. Y.	5-9	174	20
25	Holmes, Richard A.	B	Philadelphia, Pa.	5-10	186	23
95	Hynes, Thomas	G	Parkersburg, W. Va.	6	193	20
65	Jones, Donald	G	Lancaster, Pa.	6	180	26
97	Johnson, Wesley	T	North Attleboro, Mass.	6-2	200	23
70	Kies, Walter	T	Woodside, N. Y.	6-1	200	20
92	Kolakowski, M.	G	Hartford, Conn.	5-11	188	19
63	Krapf, Frederick	G	Wilmington, Del.	5-11	204	20
84	La Pointe, Arthur	E	Salem, Mass.	6-2	182	19
58	Lawrence, Edward	C	Pompton Lakes, N. J.	6	170	22
60	Learned, William C.	G	Clinton, Mass.	5-6	180	22
68	Long, William R.	G	Cumberland, Md.	6	180	20
86	Lovett, Eugene	E	Cambridge, Mass.	6-1	200	23
80	Lowans, Warren	T	Columbia, Pa.	6-1	190	21
88	McAndrew, Richard	E	Rochester, N. Y.	6-1	179	21
72	McNulty, John	T	Milton, Mass.	6-1	195	23
29	Miller, John T.	B	Philadelphia, Pa.	6	185	20
39	Moriarta, Webster	B	West Chester, Pa.	5-10	185	20
36	Moses, James S.	B	Bessemer, Pa.	5-9	170	20
35	Nute, Warren	B	New Bedford, Mass.	5-11	175	22
27	O'Connell, Vincent	B	Burrellville, R. I.	5-7	166	21
26	O'Kane, Arthur P.	B	Atlantic City, N. J.	6	178	21
82	Osborn, Harold	E	Hempstead, N. Y.	6-1	186	24
56	Piotrowski, Stanley	C	Valecia, Pa.	5-10	168	19
94	Rooney, Frederick	G	Norwalk, Conn.	5-10	180	20
76	Sachleben, W. C.	T	Sicklerville, N. J.	6-1	181	21
59	Salocks, Robert	C	New Milford, Conn.	6	190	20
71	Stankiewicz, M. G.	T	Plantsville, Conn.	5-8	190	19
83	Tuttle, William I.	E	Flushing, N. Y.	6-2	203	19
91	Walls, L. L.	E	Wilmington, Del.	6	180	20
93	Woodburn, Robert	E	Oswego, N. Y.	6-2	178	20



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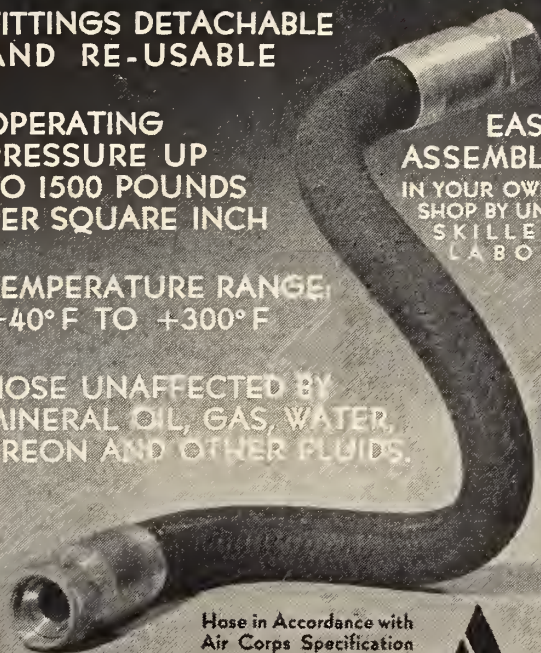
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LE Fitch 47	LT Neff 54	LG Drulis 48	C Sabasteanski 51	RG Erickson 19	RT Sullivan 42	RE Murphy, Geo. 41
			QB Cotton 21			
		LH Terrell 20		RH Bergman 33		
			FB Lang 26			

## SQUAD LIST

10 Stalnaker, R., e	22 Savage, Ray, b	35 Murphy, Ed, e	47 Fitch, Bob, e
11 Cales, Bob, g	24 Mannino, Al, e	36 Speth, George, t	48 Drulis, Chuck, g
12 Brown, John, b	25 Irby, Clarage, b	37 Ford, Ed, b	49 Bochynski, John, t
13 Peace, Bill, b	26 Lang, Allan, b	38 Purucker, Gil, b	50 Maliszewski, Henry, e
14 Dawson, Bill, e	27 Kiesecker, Frank, b	39 Dubenetzky, Paul, b	51 Sabasteanski, Joe, c
15 Lanahan, John, c	28 Constable, Matt, b	40 Greer, John, c	52 Behan, Charles, e
16 Kleinhenz, Alex, b	29 Giannini, Angelo, t	41 Murphy, Geo., e	53 Baklarz, John, t
17 Ponselle, Tom, g	30 Hall, Tom, b	42 Sullivan, Larry, t	54 Neff, Bob, t
18 Leugo, Alex., t	31 Meek, Jim, g	43 Murphy, Paul, c	56 Meyer, Bill, e
19 Erickson, Stan, g	32 Sexton, Ed., b	44 Bytsura, George, g	57 Mitchell, Dick, e
20 Terrell, Ray, b	33 Bergman, Walter, b	45 Beckwith, Bob, t	58 Vaznelis, A., b
21 Cotton, Jim, b	34 Fracassi, Gus, g	46 Fleming, Donn, b	59 Phillips, Jim, b

# NORTH CAROLINA PRE-FLIGHT

LE Norman 85	LT Lowans 80	LG Long 68	C Hart 24	RG Evangelista 79	RT Douglas 75	RE Golash 89
			QB Miller 29			
		LH Nute 35		RH Hannigan 43		
			FB Hare 16			

## SQUAD LIST

11 Holbrook, William, b	36 Moses, James S., b	64 Collins, John, g	81 Duffy, James, T., e
15 Budciarowski, S., b	38 Annis, Robert E., b	65 Jones, Donald, g	82 Osborn, Harold, e
16 Hare, Cecil, b	43 Hannigan, William, b	67 Callahan, Robert, g	83 Tuttle, William L., e
18 Gale, George, b	45 Hecker, L. M., b	68 Long, William R., g	84 La Pointe, Arthur, e
21 Hilliard, Harry, b	47 Cook, Kenneth, b	69 Guzzo, Louis, g	86 Lovett, Eugene, e
50 Hart, Paul, g	54 Holland, Eugene, c	70 Kies, Walter, t	88 McAndrew, Richard, e
25 Holmes, Richard A., b	56 Piotrowski, Stanley, c	71 Stankiewicz, M. G., t	89 Golash, E., e
26 O'Kane, Arthur P., b	57 Copeland, George, c	72 McNulty, John, t	91 Walls, L. L., e
27 O'Connell, Vincent, b	58 Lawrence, Edward, c	74 Hallsey, H. F., t	92 Kolakowski, M., g
28 Berthold, Robert, b	59 Salocks, Robert, c	75 Douglas, James, t	93 Woodburn, Robert, e
29 Miller, John T., b	60 Learned, William C., g	76 Sachleben, W. C., t	94 Rooney, Frederick, g
33 Cleri, Victor, b	61 Budd, William, g	79 Evangelista, P., g	95 Hynes, Thomas, g
35 Nute, Warren, b	63 Krapf, Frederick, g	80 Lowans, Warren, t	97 Johnson, Wesley, t

## OFFICIALS

Referee .....	C. E. Cuddy (Virginia)
Umpire .....	J. H. Stallings (Duke)
Linesman .....	G. P. Compton (Randolph Macon)
Judge .....	L. J. Perry (Elon)



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*Director of Athletics  
U. S. Navy Pre-Flight School*



LT. F. H. KIMBROUGH, U.S.N.R.

*Head Football Coach  
U. S. Navy Pre-Flight School*

# V . . .

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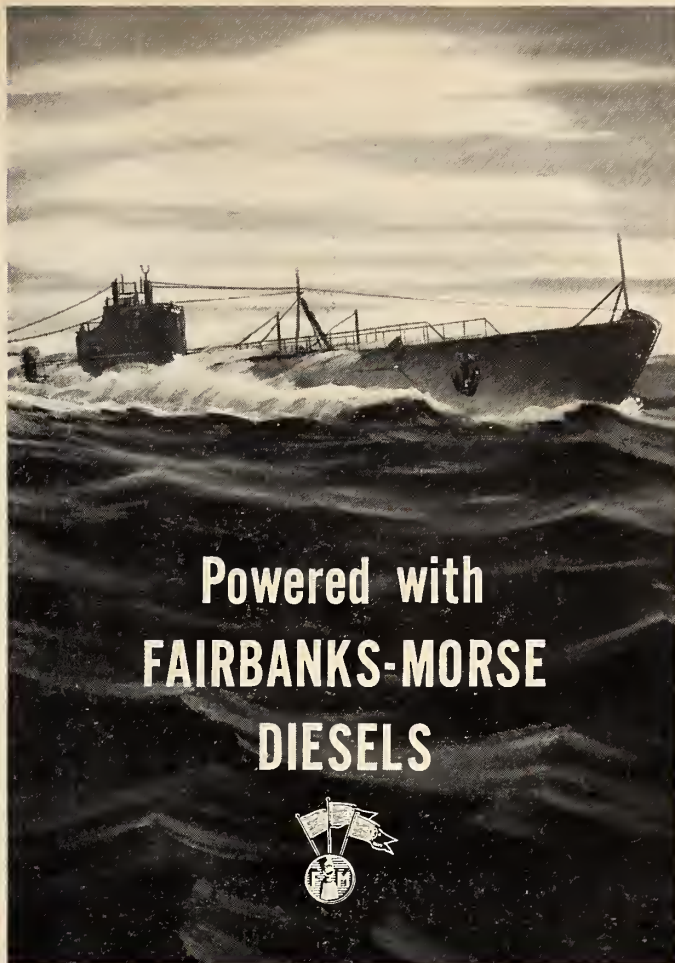
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Cannon flashes from ships out on the edges of the world; clouds of planes circling the earth to eclipse the wrath of planets; the studied, steady upbeat of rolling war drums echoing a mighty purpose; a line of war trucks quickly etched against a blazing sky and gone again.

For America.

For a cottage, a hill and orchard trees, a drowsy baby buggy in the sun, a young child in the doorway with a smile—with eyes beyond and far-flung down the path, and fixed delightedly upon a man too tired to lift his happy eyes.

Afar, a chimney tall and red, a line of smoke, a town of homes and people with its bustling streets, its vision to be great, its soul, its quickening life.

This is America.

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# Former Fields Of Sporty Rich Changed To Training Station For Rugged Youth At Luxurious Del Monte, California

BY HARRY BORBA

Sports Staff, The S. F. Examiner

**I**F it were not for the hours and the labors, pre-flight training in the newest Navy school would be a very rich dish indeed.

On the fields of Del Monte, California, where the sporty rich used to cavort, and in the salons where the wealthy idle gathered to kill time, selected groups of the youth of the land are being taught to kill the assailants of the United States and liberty.

One accustomed to the fastidiousness of the old idle hour Del Monte hotel hardly would recognize it as the bustling Monterey spa of today.

There is swimming in the Roman plunge but no photographers pause at its rim to get cheeseecake art for the fancy glazed paper magazines. The pool is filled at all hours by hairy limbed youngsters learning the latest water safety methods, the way to swim fully clothed, how to rescue a shipmate and methods for maneuvering through burning oil.

There still is grappling in the famed Bali room where society danced and the arty groups put on world noted dress parties. But it is the honest grappling of the wrestling mat and the steps are not fancy. They are made by eager youth avoiding youth in hand to hand combat.

And the Del Monte taproom? The beer taps are gone. The display of liquors and liquers in fancy bottles has long since been removed. The weary cadet now pauses there between classes and physical drill to refresh himself with a sandwich and a glass of malted milk.

They're making men where once nuan made fun. Yet, despite this quick transition from peaceful pleasure to wartime necessity, very few alterations were needed to transform the pleasure capital of the Pacific Coast into a station for producing flying Navy men.

The tremendous polo fields were divided into athletic layouts for soccer, football and touch football. An obstacle course surrounds them.

The old theatre, near the polo field, is a gymnasium.

The overstuffed furniture is gone from the hotel rooms and suites. The twin beds went with it. Each room now houses from four to eight cadets. They sleep in double-decker bunks that line the walls around the study desks and clothes lockers.

Del Monte's famed cuisine is untouched but the noted chefs are cook-

ing more food of a less fancy variety. Daily they turn out a balanced ration that supplies 5,000 calories for each student. The garnishments are absent but the food is tops.

There used to be stores along the main and basement corridors. There the debutantes bought the latest in furs and nylons; the young bucks purchased their dancing pumps and smart sports shirts. Today these are occupied by the officers in the military, academic and athletic departments.

In one of these offices you will find Captain George W. Steele, U. S. N. who is the ideal commanding officer for a pre-flight program.

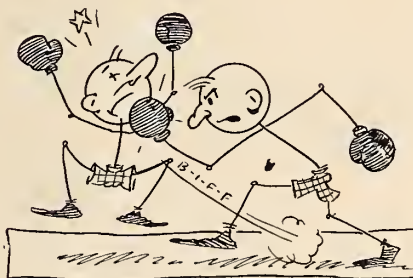
Captain Steele opened the west coast's first Navy pre-flight plant at St. Mary's College, 150 miles away near San Francisco bay. He is a former captain of the air craft carrier Saratoga and he once commanded the lighter-than-air station at Lakehurst, N. J.

The Captain has won the Navy Cross and he is also a flying officer. Thus he knows all of the angles about the hurried business of preparing your men to fly fighting ships.

The executive officer is Lt. Commander George D. Fitzhugh. He was the regimental officer at St. Mary's Pre-Flight.

Captain Steele and Lt. Comdr. Fitzhugh will tell you that they have probably the best pre-flight station in the country. They will explain that it is not because of the Del Monte hotel, its grounds and facilities.

They have become boosters for Monterey peninsula weather. Only one day since the school was opened last February 13 has it been necessary to cancel the outdoor physical training program because of bad weather. That is extremely important in a course that must be jammed into 12 weeks of concentrated work.



The classes—military and academic—go along wet or dry in the various convention rooms connected with the historic old hotel and in a new building constructed for that purpose by the Navy.

In these halls where bellicose sales managers taught their often inattentive delegates new selling tricks the Navy is teaching aerology, navigation, communications and the other essentials of naval service. The nomenclature and recognition of ships and planes is another important phase of the study curriculum.

The military side trains the young officer-to-be in discipline, Navy ways and military arts.

Out on the broad fields where the most prized of polo ponies used to gallop before bored eyes of idling galleries, Lt. Bill Kern now is working 60 young men for an hour a day creating the first football team that ever represented Del Monte on the fields of Antunnn valor.

Kern, former head coach at Carnegie Tech and West Virginia after being an assistant at Pittsburgh, is the mentor for gridironists.

Kern recently took over this one highly publicized phase of the physical fitness program that embraces everything from a punch in the nose to an honest high dive into a cool pool.

The man who heads the physical education department is Lt. M. J. "Mike" Gary. Mike was a tackle at the University of Minnesota a long time ago. For the past 15 years he had been athletic director and football coach at Western Michigan State College.

It is Mike's job to see that the ever changing cadet body gets its full quota of athletic games of every type but particularly of the kinds that teach aggressiveness and combativeness—the body contact sports.

Sports are not taught to make skilled athletes out of the cadets. They are required so that the future flyer and officer will learn timing, coordination, quick reaction and the ability to snap back to the fight after a hard wallop. While he learns these he adds to the stamina reservoir.

Years gone by when you said you were going to Del Monte you were admitting you were one of the elite.

Today, when you go to Del Monte, you are one of the select. And you stay 12 weeks—if you work hard, play harder and study longer.

# U. S. NAVY PRE-FLIGHT SCHOOL DEL MONTE, CALIFORNIA.



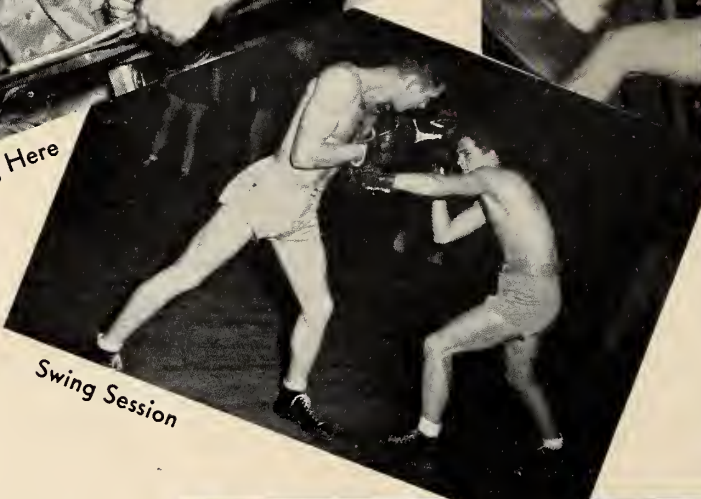
Man and Motor



No Guessing Here



Up and Over



Swing Session

It's Good, Too



**WILLIAM FRANKLIN  
BARNES**  
*Aviation Cadet*  
U. S. Navy Pre-Flight  
School  
Del Monte, California  
Age: 19 Yrs.  
Height: 5'10"  
Weight: 160 lbs.

Resident of Anaheim,  
California  
Son of Lieut. Comdr. and  
Mrs. A. K. Barnes. His  
brother, Kirby, is a sergeant  
in the Army stationed in  
Alaska, and his brother,  
Robert, is a private in the  
Marines stationed some-  
where in the Atlantic area.  
Hopes to make the Navy a  
career and stay in aviation  
after the war.

No Rest for the Weary



1. It does not take you long to learn how to shave rapidly for someone else always is waiting to use the mirror.

2. A photographer never has to ask cadets to pose in a recognition class for we must be attentive every split second if we want to do well in the course.

3. Competition is the keynote of the training. It is a lot of fun to mix it up with fellow cadets.

4. From the standpoint of both quality and quantity we have nothing but praise for the daily menu here.

5. Somewhere man may have devised a more difficult test of strength and endurance than our obstacle course, but you never could prove it by the cadets at Del Monte.

6. When day is done and shadows fall you inevitably can find any cadet working at his desk preparing for the next day's classroom work.



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sixty minutes' work.

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freedom, we will do our part to  
furnish the tools so essential to  
final Victory.



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# The IOWA PRE-FLIGHT SCHOOL

... HELPING TO MAKE  
U.S. NAVAL FLYERS THE

## TOUGHEST

IN THE  
WORLD

FIRST CADET  
ARRIVED -  
MAY, 1942



The  
SEAHAWKS

NATIONALLY  
FAMOUS  
VARSITY  
TEAMS

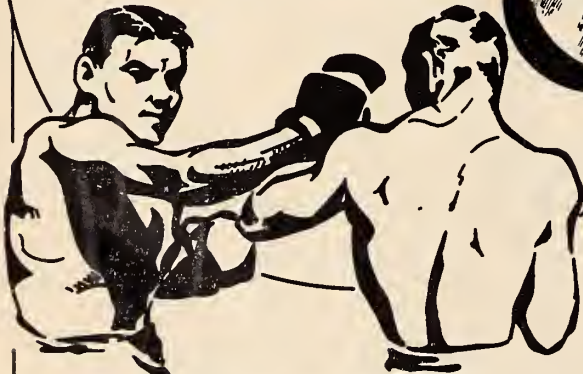


MEN  
TRAINED AT  
IOWA  
PRE-FLIGHT

ARE NOW FLYING  
IN EVERY  
THEATRE  
OF WAR.



For 3 MONTHS..  
A BALANCED DIET OF  
MILITARY  
ACADEMICS  
& ATHLETICS



FIRST IOWA  
PRE-FLIGHT  
CADET WAS  
COMMISSIONED  
A NAVY FLYER  
IN JANUARY, 1943

CAPT. DAVID C.  
HANRAHAN  
COMMANDING  
OFFICER



T.W.D. DRANK

# Sports Writer Lauds Pre-Flight Organization For Work Accomplished In Correcting Mistakes Made During Years Of Modern Peace-Time Living

BY FRANCIS J. POWERS

Sports Writer, Chicago Daily News

IN expressing my opinions of the U. S. Navy Pre-Flight program as formed at the school on the University of Iowa campus and elsewhere I will be very frank. In its Pre-Flight program, the Navy has had to correct in twelve weeks the many mistakes which have been made in years of peace time living. My observations deal with the program in its early stages. It is my understanding that the situation has been cleared up considerably in recent months since the inauguration of the Naval Flight Preparatory Schools and the War Training Service Schools. In the period about which I am writing in this article, cadets came to pre-flight schools directly from civilian life. Recently, however, two new steps were added to the training, the Flight Preparatory Schools and the War Training Service Schools. Thus when the cadets arrive at pre-flight they already have been in the service and have taken physical training along with their other work for a period of about four months. As a result they are in good shape when they get in pre-flight training now.

My report deals entirely with the early days of the Pre-flight program and I am recording herewith some of the observations which I made in the first year of the fine work conducted in the Pre-flight schools.

When a new battalion arrives at the Pre-flight school you may, and often do, see a boy with so little coordination he can't dribble a basketball 10 feet. And you frequently see a couple of boys absolutely unable to swing on each other in the boxing ring.

You see the same kids again after maybe four weeks. The kid with the basketball now can dribble the full length of the court and the two with boxing gloves are belting the thunder out of each other. You suddenly develop a lot of new pride in the Navy, not only for its ability to toughen these boys but because it had some officers farsighted enough to develop the Pre-flight program. Maybe it was Capt. Radford or maybe it was Com-

mander Tom Hamilton but whoever it was he contributed a lot to winning this war.

In its Pre-flight program the Navy has done more than toughen fliers to fight the Axis, although that is its basic purpose. The Navy has devised and developed a training program that will be just as valuable to the country after this war is won. That is if we have learned the necessity of physical fitness and intend making it a real part of our educational systems. The Pre-flight program can be abridged and adapted for physical fitness pro-



grams ranging from grammar schools to universities.

Someone in the Navy was smart enough to know you can't toughen American boys with calisthenics and gymnastics alone. Competition is an inherent trait of the American boy and when you find one lacking it, there's someone to blame along the line. In the pre-flight schools a cadet is taught mental as well as physical combativeness and it was remarkable how soft we had gone mentally. Just about as soft as some people who would throw out football and other contact sports. The Navy found football to be one of the best sports to develop both the body and mind to the job of winning in a game where there are no moral victories and the good loser is a dead one. The Navy also took the best from basketball, track, baseball, wrestling, boxing, etc. Each sport trained a dif-

ferent set of muscles, each one gave the cadet a new medium for killing an enemy or saving his own life; which is just as important.

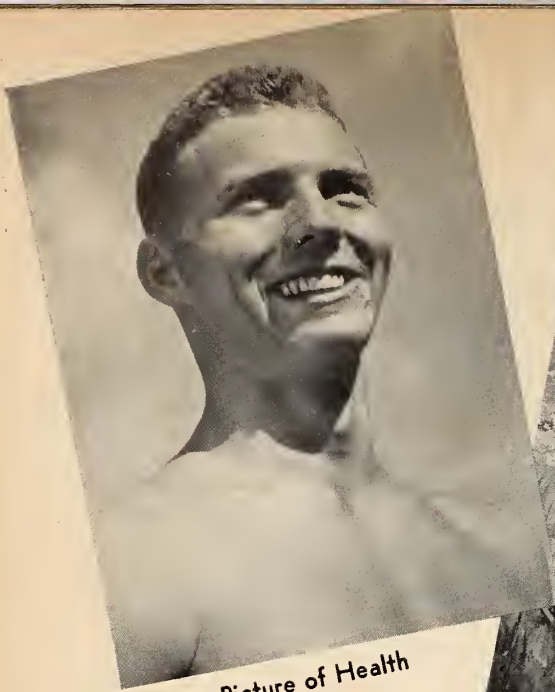
The Naval Aviation Training authorities have found that Cadets learn quicker through competitive sports than regimented calisthenics. In competitive, contact games they develop fast mental reactions and the ability to think and act in situations that are not a part of any routine or found in any text book. Team games are best, for experience has proved many times in this war that team work is essential to success in the air.

I think the Pre-flight program is epitomized in the training for hand-to-hand fighting. There is nothing nice to hand-to-hand fighting. It's deadly and gruesome and its motive is to maim, incapacitate or kill an enemy. In perfecting the technique of hand-to-hand combat the Navy has gone to many sports: Boxing, wrestling, judo, football, soccer, track. It teaches a man to defend himself or attack only with his hands and feet. When a Cadet has gone through all the other routines of the program and has mastered the hand-to-hand combat he's as tough as a human being can become. Something the butchers of the Axis have learned in the one way they understand.

The Pre-flight program has saved the lives of many American boys. It is training pilots who will fight and live. When a boy fails to pass the Pre-flight tests he may be saving his life as well as those who might be dependent upon him if he had gone on unprepared.

I have no patience with the critics of the Pre-Flight program. Its aim was to aid in the development of great fliers and it has succeeded. In addition it has given us a physical training program that if utilized can avoid similar mental and physical softness in the future. Our shame is that we lived in such a manner as to make the Pre-flight program so necessary to the winning of the war.

# U. S. NAVY PRE-FLIGHT SCHOOL IOWA CITY, IOWA.



Picture of Health



Swing It, Lad



Where "Pull" Counts

Short Subject



Star-Gazers



Sweet Is the Word



DAVID DANIEL NAAS  
Aviation Cadet

U. S. Navy  
Pre-Flight School  
Iowa City, Iowa

Age: 20 Yrs.  
Height: 5'10"

Weight: 158 lbs.

Cadet commander of regiment at Iowa City. Attended University of Minnesota for two years. Belonged to private flying club as a civilian and paid for own lessons. Has brother, Vernon, in Army Air Corps. Has two other brothers, John and Bob, and one sister, Audrey.

1. This is a land of plenty. There is plenty of exercise, study, food, sleep, recreation, and good hard work, with particular accent on the last named.  
2. We build fields and help to maintain the physical appearance of our station. Medium of this work is the manual labor program, facetiously called "Engineering" by cadets.

3. Throughout our work here, emphasis is on the practical aspects of the various activities. We learn how to come down a rope properly.  
4. We constantly are reminded that we are training to be officers as well as flyers, and that the drill field is a good place to develop qualities of leadership.  
5. At Pre-Flight we spend almost as much time in military and academic courses as in athletics. One of our most important subjects is celestial navigation.  
6. Even in a busy place like this we do find time for fun and frolic.



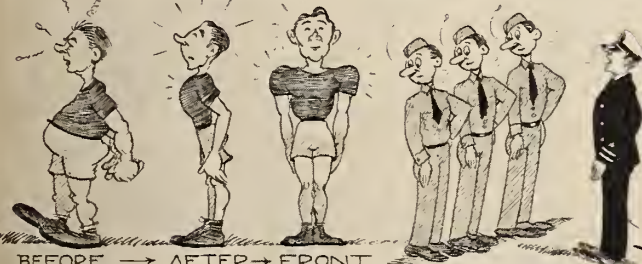
ENLISTED MEN  
ARE DOING  
A FINE JOB

# U.S. NAVY PRE-FLIGHT SCHOOL ST. MARYS COLLEGE, CALIF. ~



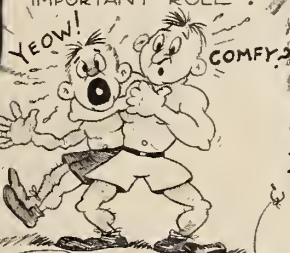
COMMANDER CLYDE W. KING, USNR  
COMMANDING OFFICER

IN THE HEART  
OF THE  
MORAGA HILLS



BEFORE → AFTER → FRONT  
MASS EXERCISE VIEW

"HAND TO HAND" —  
PLAYS A VERY  
IMPORTANT ROLE ~



MILITARY DRILL  
IS GIVEN THRU-OUT  
THE ENTIRE —  
TRAINING PERIOD —



THE OBSTACLE  
COURSE IS A  
FEATURE EVENT  
IN THE DAYS —  
PROGRAM.



LT. COMDR. WILLIS O. HUNTER, USNR  
DIRECTOR OF ATHLETICS



MORALE & DISCIPLINE  
ARE EXCELLENT

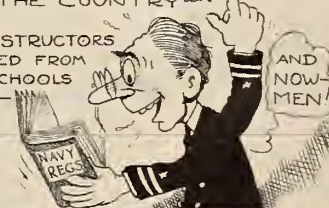
LT. COMDR. FRED W. PIERCE, USNR  
EXECUTIVE OFFICER

THE 'AXIS' IS A REAL INSPIRATION  
TO THE CADETS ~



HARDER  
ONE OF THE FINEST  
COACHING STAFFS  
IN THE COUNTRY ~

ACADEMIC INSTRUCTORS  
WERE SELECTED FROM  
THE FINEST SCHOOLS  
AND COLLEGES —



THE SPIRIT OF THIS SCHOOL  
IS CARRIED OUT TO THE ENEMY ~

# Writer Who Learned The Hard Way Puts Stamp Of Approval On Training At St. Mary's Pre-Flight School

BY GEORGE T. DAVIS

Sports Editor of The Los Angeles Evening Herald and Express

THE fellow who tells you to join the Navy to get out of marching—well, just refer to any of the 191 coaches, athletic directors and newspapermen who participated in a two-weeks' training course at the St. Mary's Navy Pre-Flight School during August, 1942.

How do I know? I was one of 'em, and my dogs still bark.

Upon the invitation of Comdr. Tom Hamilton, daddy of the pre-flight schools; Lt. Comdr. Frank Wickhorst, now in charge of this excellent program; and Lt. Comdr. Sam Barry, then athletic director at St. Mary's; we lived the life of Navy air cadets for 13 days.

But those 13 days were among the luckiest of our lives as we acquired first-hand knowledge of the ground work given these cadets who are compiling such remarkable records in the air in the war against tyranny.

And we learned it the hard way—muster, march; muster, drill; muster, athletics; muster, muster, muster from 0600 to 2130! Boy, were our dogs seaworthy?

I'm afraid that we taxed the patience of Capt. George W. Steele, commanding officer; and Comdr. Clyde King, executive officer; as we marched over the grounds at a cadence count that was a slow motion picture of those smart young cadets in their brisk steps.

## One Hundred Per Cent For Effort

But we tried—and in so doing we learned to appreciate the effort that goes to building a Navy flier, and our old (and fallen) chests fill with pride over the accomplishments of these youths.

"We were part of 'em, if only for two weeks," we oldsters boast. But this is something of an over-statement.

We did set up one record—Bill Cole, of Santa Ana; Charley Hunter, of the Olympic Club; and myself—that probably never will be equalled at St. Mary's

or any other pre-flight school, for that matter.

It was the number of times we fell in the "drink" while trying to swing across a 26-foot ditch of water on the obstacle course.

Oh, yes, we made some other records, too—snoring, eating and gold-bricking, to mention a few on the dubious side.

But we had our athletes in the course also and could muster a football team—only on paper, mind you—that could have given Lt. Comdr. "Tex" Oliver's Airdevils composed of the Frankie Alberts, Vic Bottaris and Bobby Graysons plenty of argument if the calendar could have been turned back and aging muscles traded for youthful physiques.

Our "paper team" from the men in our group included:

Ends—Ike Frankian, St. Mary's; and George Canrinus, St. Mary's.

Tackles—Harry Shipkey, Stanford; and Chris Freeman, Stanford.

Guards—"Babe" Horrell, California; and Shelby Calhoun, Louisiana State.

Center—Bob Herwig, California.

Quarter—Rev. A. J. Dussault, Gonzaga.

Halfbacks—Elden Jenne, Washington State; and Joe Verducci, California.

Fullback—Bill Cole, Southern California.

And if this team would need any coaching, we would have Mike Ryan, Idaho mentor who was with the American '08 Olympic team—with Ernie Cope, Bill Leiser and myself to serve as the Monday morning quarterbacks.

## Amos Alonzo Stagg Endorsed Training

On the serious side, Amos Alonzo Stagg, octogenarian coach who still is active at the College of Pacific, visited us at St. Mary's and heartily endorsed the fitness program, declaring:

"It's one of the finest things I've seen in all my years. My only regret is that I haven't been able to hold back the calendar so I wouldn't have to be on the outside."

Then he glanced from the well-trimmed cadets to the 191 fallen-arch athletes who composed our group, and grinned:

"Maybe I'm not too old, at that."

And probably he was right. As we were marching to chow one day a new cadet, who just had come aboard, asked an older classmate:

"Who are those old fellows?"

And the reply was:

"Oh, they've been here for 10 years but can't pass their physical."

But there was plenty of constructive thought, as well as gags, in our gang and Verne S. Landrech, California state physical education director who took the course at St. Mary's, used this pre-flight program as the basis for an all-out campaign for the school youngsters to coincide with the war effort.

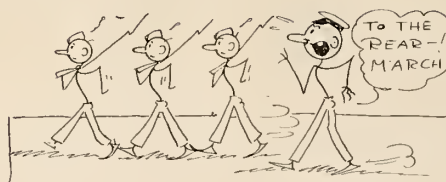
As he put it:

"The winning of the war may depend upon the boys now of junior high school age, and our job is to get them fit for this grim responsibility."

All in all, it was a wonderful experience for us and, when Capt. Steele gave us our diplomas at the end of our course, we were better men for having associated with the cadets in this great program.

As each of us stepped forward to receive our certificates of 126 hours of indoctrination, the one paramount thought was:

"I'm glad I'm an American."



# U. S. NAVY PRE-FLIGHT SCHOOL ST. MARY'S COLLEGE, CALIFORNIA.



Time and Tide Wait for No Man

The More, the Merrier



Contact—And How!



A Word to the Wise



Rarin' to Go



Full House



1. Favorite phrase of our officers is "On the double." We hear it from dawn until after dusk as we move rapidly to each activity.  
2. Military track prepares us to extricate ourselves from tough spots.  
3. Serving as mate of the deck, we receive instructions from our battalion commander, Lt. (jg) Frank C. Albert.

4. In boxing, we learn how to come back from a tough body blow.  
5. We head for San Francisco so that the Bay District folks may see how a St. Mary's "Tiger" looks in his dress blues.  
6. The scuttlebutt session is now in full swing as we listen to some solid tunes, read a magazine and talk over the day's occupation.

# LETTER TO MY BROTHER'S 16 YEAR OLD SON

Dear Louis:

You ask if it's still true, what I wrote you over a year ago about winning the war. Boy, like most sports writers, I hesitate to examine anything I wrote that is 13 weeks, let alone 13 months' old, but let's try.

Remember you had asked a few questions, had left many unasked and had heard answers to practically none. In part, as I remember, I wrote you,

"Unaccustomed to advising 15-year-old-men, I hesitated to make suggestions. Since you returned home, I have listened to the best informed men I know, I have estimated known facts as best I am able, and have come to certain conclusions I do not at all like.

"I am merely a sports editor; I have no military information; I am not any part of a war analyst. Nevertheless, it seems as definite as the probability that Joe Louis will win his next fight that-

"Men of your age, 15 years and younger, will have to win this war, if older men do not lose it for you before you are ready to take over and carry the load.

"This isn't a frightening prospect, though it's a grim one.

"This, I'm afraid, is going to be your first great job in life. You didn't ask for it. You inherited it, and it's yours, that's all.

"I hear older persons like myself talking about saving 'our way of life' for our children. I don't think they can do it. It's the children, if we insist on calling 15-year-old men children, who will save the 'American way' for everyone.

"That's going to be your major job. . . . Since it's going to be your job, your major purpose today must be to prepare yourself for it, to prepare to live, not to die, in fighting it out, to prepare to win this war which is going to fall squarely upon your now young shoulders."

And now, Louis, you ask if this is still true.

Yes, boy, from your point of view, it still is true.

Today, the Army and Navy are depending more and more on 18-year-old men. These men were 17 years old when I wrote you a year ago. Today you are 16. You're not far removed, right now, from the toughest and grimmest job in life, war; and the greatest effort you and men of your age can make for yourself and your country is to prepare, even more thoroughly for it.

How?

The answer is exactly what it was a year ago.

We talked about improving your speed for football and basketball by running that last quarter mile on the way home, each day, from the Washington School to the old Booth home, and sprinting the last 50 yards. In six months that will gain a half step for you in your speed to first base. To improve your "skills" in baseball and football is to improve the same "skills" used to advantage in war combat, as the Navy has determined and emphasized in all of its pre-flight schools.

Improve your speed and learn all you can about combat sports, but that isn't enough.

It is necessary for 16-year-old men to become strong swimmers. You do swim. But, you must continue to improve, to learn how to swim with a good weight on your back, how to stay afloat a long time, how to care for a comrade who has been so unfortunate as to attend a school or live in a community in which boys don't learn how.

I know a flyer from Concord who was down three times in the Indian Ocean. He could swim well. That's why, though three of his planes were licked, he's back flying today and knocking Japs out of the skies. Major Joe Foss, the great combat

*from* **BILL LEISER**, *Sports Editor, San Francisco Chronicle*

ace of the South Pacific, was shot down on a dark night. He told me that if he hadn't known just a little about swimming, he'd have drowned then and there, alone. He didn't. If he hadn't known a little about the water he would be dead today, and many dead Japs would be alive and would be killing American boys.

Now, Louis, I don't mean that you should spend all of your time or even the most of your time right now thinking about this job you have coming up.

Surely you should go to dances, pick the raspberries, enjoy high school and play the games you like.

But, take enough time to be sure you are on the track that leads to where you are going.

Fortunately, for yourself, you now have your own fitness program of basketball, baseball, and football and swimming. But, for your friends, does your high school have a general fitness program?

Surely, Army and Navy devote weeks to toughening up boys after they enter the service. But they can't do one tenth the job in the time they have for boys of 18 and over that boys can do for themselves, with reasonable help, while they are 15, 16, and 17.

You say your school has a good sports games program, and you're in it pretty much the year around. O.K., now, for you. But, the boys not in that program are getting an unforgivably bad break, and some of them are your best friends. Without a complete program including all boys, it is failing.

The main job of the United States is to win the war. Many factors still indicate that this job is going to be the task of 16 and 17-year-olds. If your school is not providing the 16 and 17-year-olds the most important training for this war job, then your school is just not doing its own job. Your school is failing your young friends and your country.

The Navy will help your school prepare a program including all boys in it. The Army will help. The Navy had nearly 200 men from public schools at St. Mary's Pre-Flight a year ago, and all of them are now teaching carefully planned programs that will fit your school and give all of your 16-year-old friends a fighting chance. Your school can have the program, and there's no reason why you shouldn't have benefit of all of it along with games experience.

I think you are already on the beam, Louis. Get your young friends on it, as far as you are able. Get a complete fitness program in that Twin Falls High School of yours, if you can, for your own good.

It is extremely IMPORTANT to all of you to acquire now, in the years immediately before you are 18, advantages which you never again will be able to attain.

As we said last year, Louis, once you and Dad and Mom have done all you can to set up the best program possible, then you forget the war for another year. Hit everything hard, and have all the fun you can both working and playing. Is IS fun to do work well, just as it is to play hard and win. Do both, and the rest, for the time being, will take care of itself, while you will be ready to take care of the rest when the time comes.

One great pilot with a fabulous record said to me, "Strong, sound physical condition is the implement to any purpose of mind. Boys of today who study hard and grow strong and know themselves will soon find revealed to them a world exciting beyond their wildest imagination."

Good night, Louis. I may be wrong, pray to God that I am wrong about the length of the war, about just who will carry the ball from the 50 yard line on to the goal; but if I turn out to be wrong about that, I know I am still right about you.

Sincerely,

Uncle Bill.



# PRIMARY AIR TRAINING



(Upper left) Cadets at Ottumwa, Iowa, looking over the flight orders for the first period. Some of the cadets are ready to go, with parachutes already buckled on. (Upper right) Training planes flying in formation form a pretty picture in the clouds as this photograph serves to indicate. (Top inset) Gymnastics and tumbling are designed to make cadets feel at home when in an upside down position. This scene is at U.S.N.A.S., Glenview, Ill. (Center inset) Cadets take notes on a Navigation problem in Ground School at the Naval Air Station, Glenview, Ill.

## PRIMARY TRAINING

PRIMARY training is the fourth phase in the Navy's training program which is today producing pilots able to meet the world's best on better than even terms. It is at the Primary Base that the cadet really tries his wings in a Navy training ship. No matter how far he goes in the field of war and subsequent peace time aviation, the pilot will never forget that momentous day when he climbed alone into his rugged Navy trainer for his solo flight. Hours of flight with a skilled instructor and hours of ground school had gone into that Navy solo and had paid dividends.

Chief of the Naval Air Primary Training Command is Rear Admiral Elliott Buckmaster, USN. With headquarters in Kansas City, Admiral Buckmaster has in his command the Naval Flight Preparatory Schools, the C.A.A.-War Training Service Schools, the Pre-Flight Schools, the Regional Offices and the Primary Air Stations. (Picture appears in center of Primary Air Training Photomontage.)

Days pass rapidly for the budding flyer and his progress is steady.

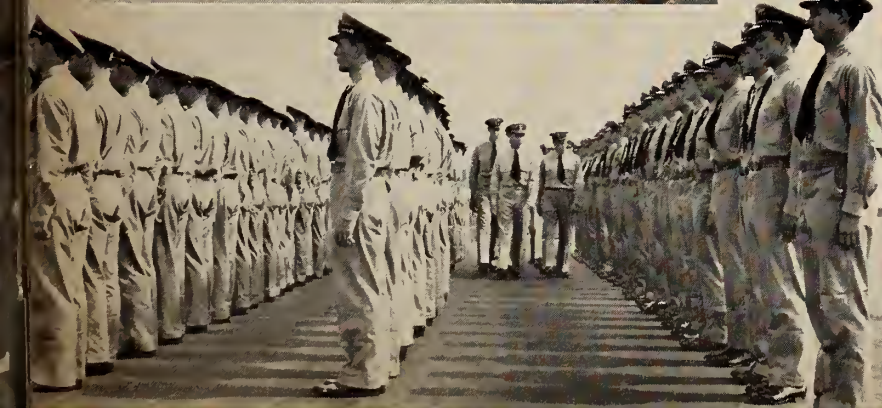
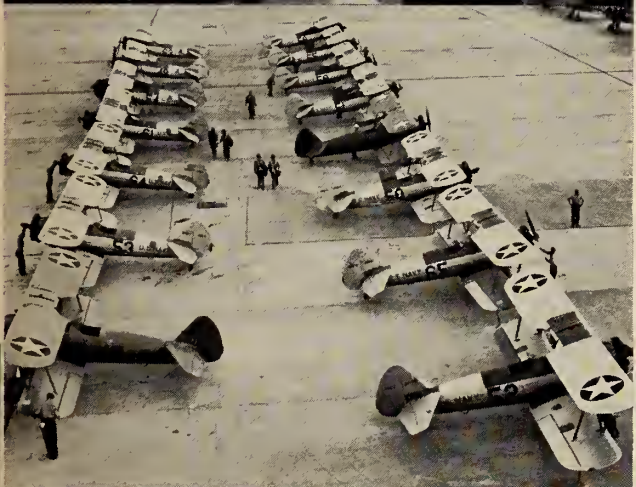
Hours upon end he has wheeled over a white stone circle in fields surrounding the air station, coming in to touch his landing gear and taking off again to repeat the cycle. Thus does he acquire the sense of distance which will one day enable him to "set her down" on a flat top without error. He does wing overs, figure eights and other aerial acrobatics which teach him the elements of maneuvering for combat. (His night flights give him the chance to practice landing and taking off at night.)

While this phase of the Navy's "learn by doing" program moves ahead, the cadet is not neglecting other essentials. In the class room, or ground school he pores over texts on navigation, power plant, aerology and other kindred subjects he will need to know before he is a competent flyer. His course in recognition teaches him to instantly recognize any air or surface craft of friend or foe without hesitation.

Nor has he neglected the physique God gave him and which received such a thorough conditioning at Flight Preparatory, War Training Service and Pre-Flight—his first three stages of training. He is proud of that body and the newly acquired athletic skills and works daily under expert supervision to further improve it.

Such is the Primary life of a Cadet. He is still not a fully trained flyer when he ships out for more advanced training, but he is still a lot of pilot in anybody's ship. An integral part of the broad training program which is producing pilots who are already bringing swift retribution to the Axis strongholds in Europe and the South Pacific.

(Lower inset) The old "down to the sea in ships" still holds good in the Navy, but the aviation pilots have their own version with their "up in the clouds in ships" to do their part. (Lower left) Cadets at Ottumwa, Iowa "stole the show" at the general inspection held recently. The cadets are pictured here at "attention" with the inspecting party moving down the lines. (Lower right) Aviation cadet V. E. Hansel ready to take off in N2S-3 at Memphis Naval Air Station.

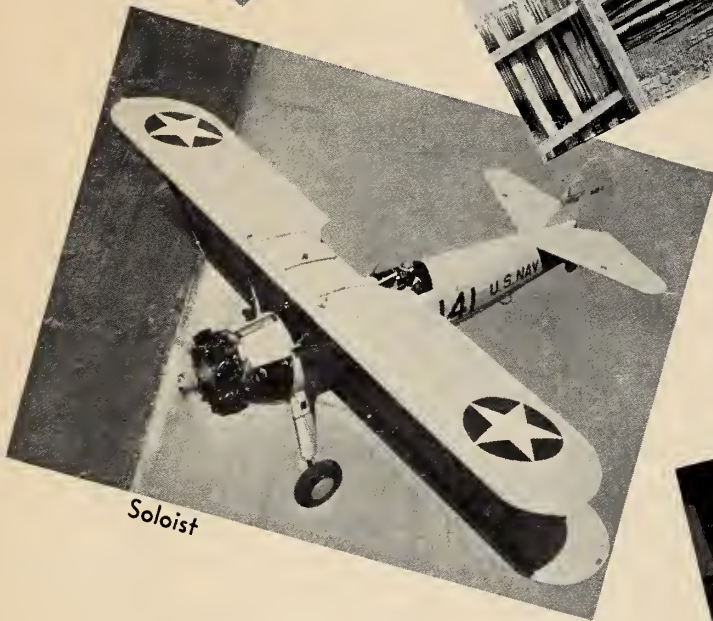
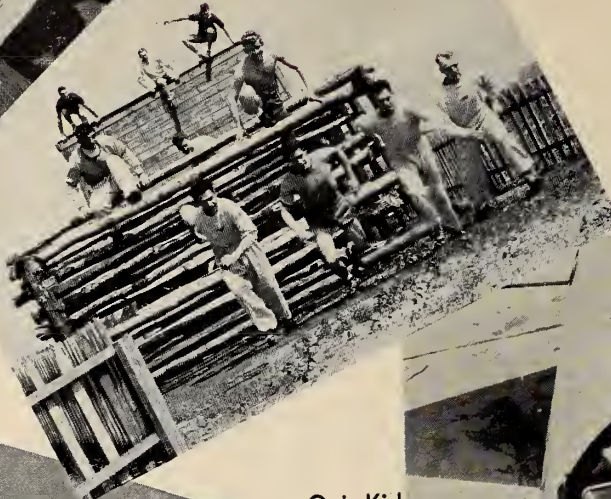


# PRIMARY AIR TRAINING



Student

Obstacle



Soloist

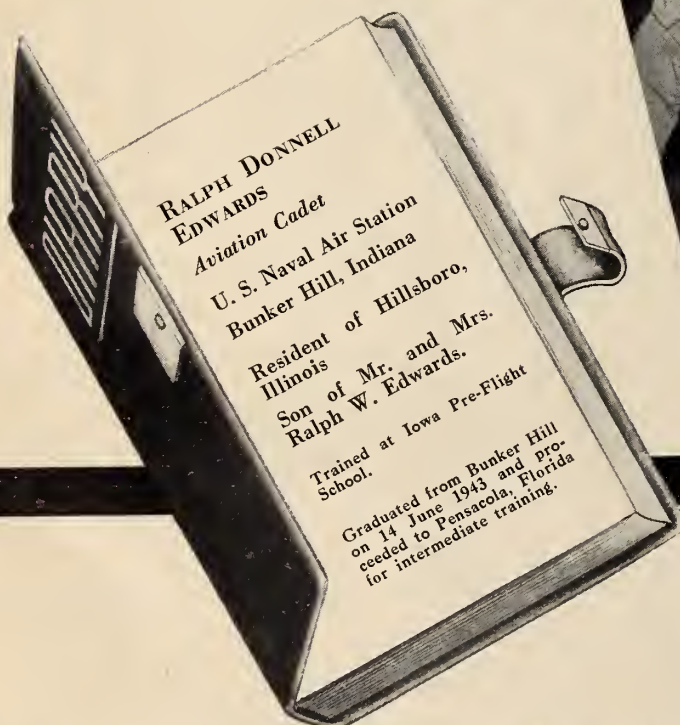
Quiz Kid



Sharpshooter



Tea Hound



1. We spend long hours in the study of navigation.  
 2. Whether we be called "obstacle" or aviation cadets, the fact remains that it is a long weary road on the obstacle course.  
 3. This picture was taken just before I made my solo hop. I was filled with questions as I checked everything carefully before taking off on the most momentous ride or my flying career.

4. Thousands of others had soloed before me, but the realization of this fact has not prevented me from recalling minutely the details of that great day.  
 5. Flying finished, a game of pool helps us to relax a bit.  
 6. We enjoy our liberty night. The social lions really roar once they don their blues.



LIGHTER THAN AIR TRAINING



Scene on patrol in the Atlantic with "K" ship over convoy.



"K" ships fly in weather that grounds most aircraft. Scene last winter as ship returns home from patrol.

## LIGHTER-THAN-AIR TRAINING

**P**ILOT training in lighter-than-air is being conducted on the East Coast at Lakehurst, N. J., and on the West Coast at Moffett Field, California.

Chief of Naval Airship Training Command is Rear Admiral Charles E. Rosendahl, USN. (Pictured in center of photomontage speaking to graduating class.) Pilot training at Lakehurst and at Moffett Field is under his direction.

Graduates of Navy Pre-Flight Schools who applied for lighter-than-air and have qualified are sent to one of these training centers. The Primary and Advanced Training courses now being taught have been lengthened, each now taking three months.

Primary ground school instruction covers courses in Aerodynamics, aerostatics, airman-ship, balloons and gases, communications, design and maintenance, mooring and docking, navigation, ordnance, photography, power-plants and strategy-tactics and missions.

Primary flying is given in small "L" type training ships which have a capacity of 123,000 cubic feet of helium and are 150 feet long. Three to six cadets are usually carried in these training flights along with the instructor and

enlisted mechanic. Flights last from three to five hours depending upon the stage of training and each cadet has his turn at the controls.



(Inset) Transformation. The cadet hat is removed for the last time and in its place goes the Officer's cap. His training completed, the cadet is now an Ensign in the Naval Reserve.

Rear Admiral Charles E. Rosendahl inspects graduating class at Lakehurst prior to ceremonies of commissioning and designation as Naval Aviators (airship). Those without wings are honor graduates who will receive their wings from the Admiral.

Free ballooning is one of the most interesting parts of the Primary course. An airship with both engines dead can be flown exactly in the same manner as a free balloon. These training balloons are generally of the 35,000 cubic foot size, and carry an instructor and five or six cadets in each flight.

Upon successfully completing primary training the student is then moved to the advanced course which covers flight in the "K" type patrol ships. During the flight training the cadet is given the required number of hours at vital positions in the ship. Thus every airship pilot has a complete working knowledge of the duties of every man aboard and is qualified to do every job.

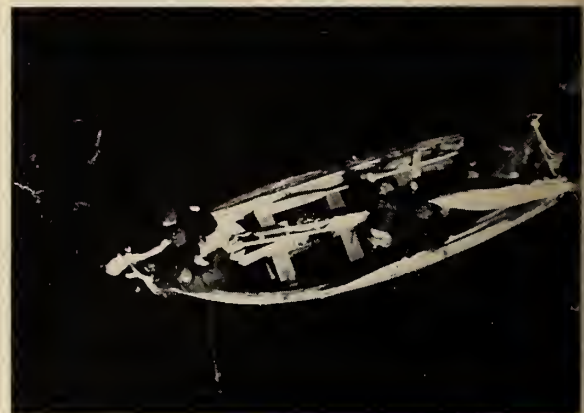
Advanced ground school courses are given in leadership, communications, ordnance, navigation, squadron organization, ship recognition, engineering and aerology.

During the six months of Primary and Advanced training all cadets are given rigid athletic training that builds their physical strength to the high standards set by the Navy. Drilling also has its place on the daily schedule.

Cadets who successfully complete all flight and ground courses are commissioned as ensigns and designated Naval Aviators (Airship), after which they are assigned to operating squadrons for anti-submarine duty in the Atlantic, Pacific, Gulf of Mexico and outside the Continental limits of the United States.



View of ground crew as "L" type trainer comes in for a practice landing.

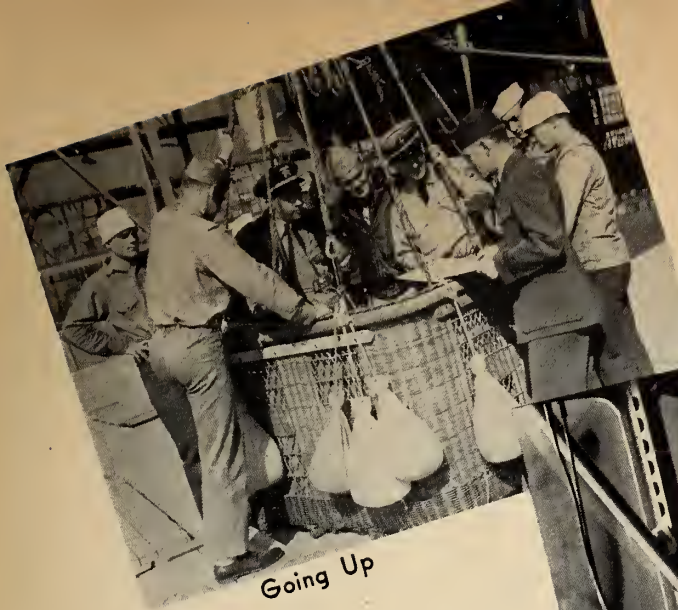


Emergency food and medical supplies being lowered from "K" ship to survivors of a torpedoed merchant ship in the Atlantic. Blimp called for surface craft which came to the scene and took survivors to port.



"K" ship leaves hangar for training flight.

# LIGHTER-THAN-AIR-TRAINING



Going Up



4.0



Homeward Bound



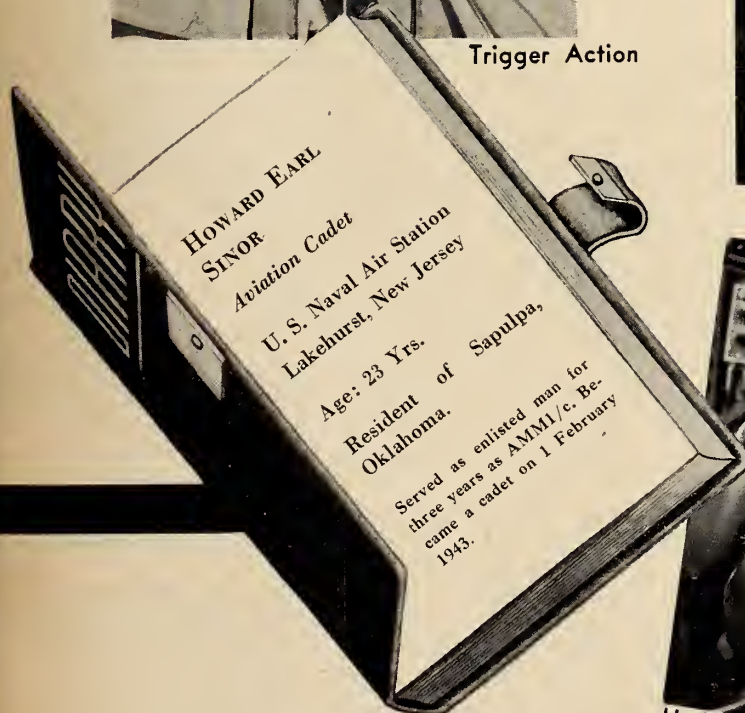
Trigger Action



Subs Beware



"Joe"



HOWARD EARL  
SINOR  
Aviation Cadet

U. S. Naval Air Station  
Lakehurst, New Jersey

Age: 23 Yrs.  
Resident of Sapulpa,  
Oklahoma.

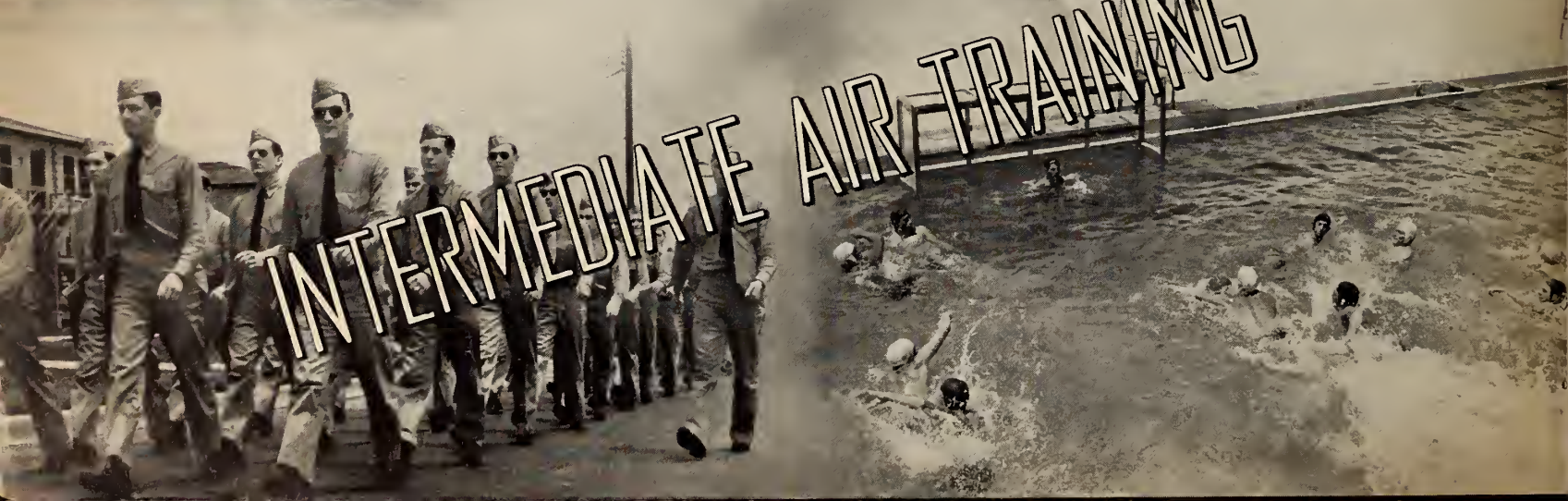
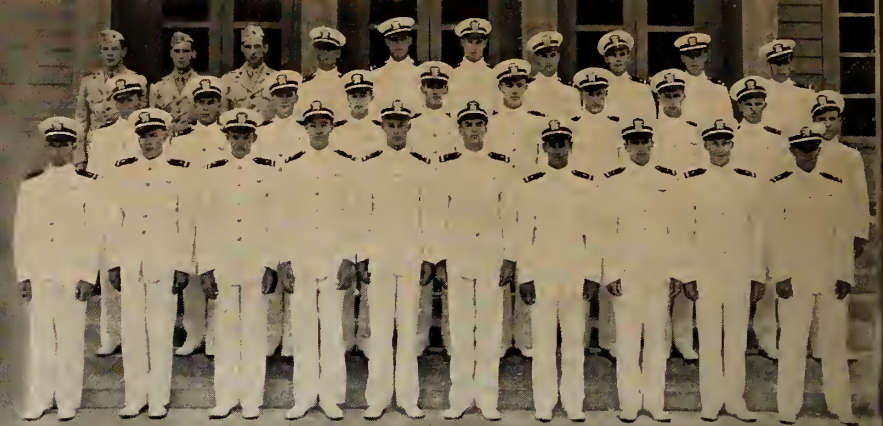
Served as enlisted man for  
three years as AMMI/c. Be-  
came a cadet on 1 February  
1943.



Under Control

1. It is the day for our hop in a free balloon and final word on the wind is being given to our pilot by the ground handling officer.
2. We have taken over the duties of a AMMI/c as we sit behind the mech. panel.
3. Our charts and the implements for calculating maps simplify the problems of navigation.

4. We keep our eyes glued to the sea for any trace of enemy subs.
5. Some call it coffee. Some call it Joe, but we all enjoy it.
6. We learn how to handle the rudder and once you get the knack of it, it comes without difficulty.
7. The blinker is used for communications with surface facilities when in convoy. Old chiefs furnish us the instruction.



INTERMEDIATE AIR TRAINING

## INTERMEDIATE TRAINING

**H**AVING completed primary training at any one of thirteen stations located from coast to coast, Naval aviation cadets then go to either Pensacola, Florida, or Corpus Christi, Texas for their intermediate training. The function of the Naval Air Intermediate Training Command and of the Pensacola and Corpus Christi centers, is to give training leading to commissioning and the award of wings under the cadet training program. Since the cadets earn the wings of gold at Pensacola or Corpus Christi, it can be seen readily that the station at which they take their intermediate training will live for many years in the mind of all aviation cadets.

Commandant of the Naval Air Training Center, Pensacola and Chief of Naval Air Intermediate Training is Rear Admiral George D. Murray (pictured in center of photomontage), a veteran of 36 years in the Navy, 29 of them in Naval aviation.

There are two distinct phases in the program of an aviation cadet at the training center: that which teaches him to fly and that which prepares him to discharge the duties of an officer.

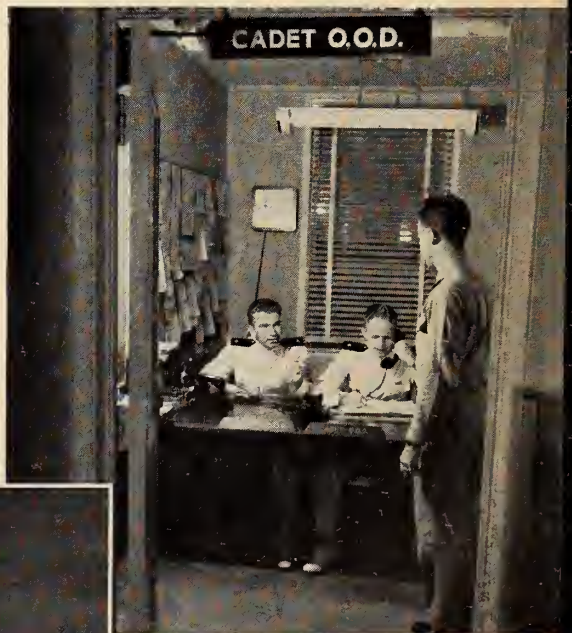
Basic training for cadets at either Pensacola or Corpus Christi includes their first contact with heavier planes, formation flights, acrobatics and long intensive hours of practicing landings and take-offs from one of the many small fields in the vicinity of the main stations.

Next step is instrument training which receives particular stress in the Navy. Cadets spend many hours in Link Trainers and under the hood of training planes, preparing for the day when they may be finding their way back to a carrier steaming somewhere in the middle of the Pacific.

When basic and instrument training are completed, cadets are assigned to one of five types of advanced training. These include (1) long range patrol bombers; (2) observation scouts; (3) fighters; (4) dive bombers and (5) torpedo bombers.

At impressive graduation ceremonies cadets receive their designations as Naval aviators and commissions in the Naval Reserve or the Marine Corps reserve. Some of the graduates are sent to advanced bases for further transitional training while others are retained as instructors.

Below—Rear Admiral Charles P. Mason, USN, commandant of the Naval Air Training Center, Corpus Christi, Texas, receives a snappy salute from newly-commissioned Ensign Paul J. Ward of Marysville, Missouri, who has just received his wings of gold at graduation exercises.



Top—As a training plane was winging its way far above the clouds a photographer caught the plane in flight. Result—the top photograph.

Center—A group of cadets prepares to take off on a flight at dawn. Neither too hot nor too cool at break of day, this is an ideal time for flying.

Bottom—Cadets stand regular watches throughout their training. This is a photograph of the duty office at Corpus Christi, Texas.

Top—Graduation is a big day as Naval Aviation Cadets are commissioned as officers in the Naval Reserve or the Marine Corps Reserve upon successful completion of intermediate training.

Center—The aero wheel is popular with cadets throughout the training program. It helps trainees to develop the natural sense of balance.

Bottom—An H. P. (hot pilot) serves a hot dog to his drag at a station dance. There is recreation for all and pretty girls always help to brighten the picture.



# INTERMEDIATE AIR TRAINING

Practice Makes Perfect



Off We Go



Texas, Deep In The Heart of



Henderson Memories



We March, Too



Semper Fidelis



**CHARLES JUDG  
RINGER,**  
*Aviation Cadet*  
U. S. Naval Air Training  
Center  
Corpus Christi, Texas

Age: 24 Yrs.  
Height: 6'3"  
Weight: 195 lbs.

Participated in football, golf  
and swimming at the Uni-  
versity of Minnesota. Was  
member of Iowa Pre-Flight  
football team in 1942. Com-  
missioned in U. S. Marine  
Corps Reserve at Corpus  
Christi on 3 July 1943.

1. No matter how often you step into the cockpit, it does not seem to get monotonous.
2. There is a touch of the old West in this photograph, snapped when some of my ship-mates went to visit at a nearby ranch.
3. That is Lt. Colonel R. C. Mangrum of the Marine Corps. He is Officer-in-charge of the cadet regiment. The cadet with him is Dennis E. Byrd. They had met before, for it was their plane that was the first to land

- on Henderson Field at Guadalcanal, where Byrd was gunner for Colonel Mangrum.
4. We spend a lot of time in ground school studies, in physical training and on the drill field.
5. We work in a synthetic device which is built on the ground for training purposes.
6. A cadet no longer—now a commissioned officer in the United States Marine Corps—I have just received my wings of gold and my commission.





A view of three of the hangars that line the waterfront at the Jacksonville Naval Air Station. In the foreground OS2U Kingfishers and SO3C Seagulls are lined up ready for use in operational training flights.



These TBF Avengers look just as beautiful—and deadly—on a training flight over the Jacksonville Naval Air Station as they do to Jap pilots in the Southwest Pacific. (In circle) A signal officer brings a student F4F fighter pilot in for a practice carrier landing during Air Operational Training.

## OPERATIONAL TRAINING

**B**ECAUSE of its nature, operational air training in time of war does not lend itself readily as a source of material for public consumption, either written or pictorial. The story behind operations and the tale of the results of the training would make interesting reading, but it must be restricted because any knowledge of the type of training which is being given to Naval and Marine Corps student officers would be of considerable value to the enemy.

Under the cognizance of NAOPTC come several activities, each of which handles its own type of specialized training. Most of the training is conducted in the state of Florida. Each station has a particular mission to perform, and the combination of the various objectives adds up to the overall purpose of Naval Air Operational Training.

Students in Operational Training are newly designated Naval Aviators who (having just completed their intermediate training at Pensacola or Corpus Christi) have earned their wings of gold



Cadets learn effects of flying at high altitudes.



Student officers learn how to fly the "hot" models they will later use in combat.

and are now commissioned officers in the Naval Reserve or the Marine Corps Reserve.

Before entering operational training, aviation cadets learned how to fly as individuals, but now the emphasis is placed on teaching the student-officers to perform as members of a team. They not only perfect their own assignments but also learn what their squadron mates must do and how the work of all hands must be dovetailed in order to

The Naval Air Operational Training Command is responsible for the operational instruction of naval aviators. Headquarters is in Jacksonville, Florida. Rear Admiral Andrew Calhoun McFall, USN (pictured in center of photomontage) is Chief of NAOPTC.

accomplish a mission. Training is conducted in six types of planes; fighters, dive bombers, torpedo, patrol, twin engine land plane bombers and ship based scout bombers.

In all cases actual battle conditions are simulated and are made to be as close as possible to latest operations against the enemy.



A group of recent graduates of the Naval Academy watches with interest as a plane is about to be catapulted at the Naval Air Station at Jacksonville, Florida.



Lt. Cmdr. Fred "Buzz" Borries of Navy grid fame, and veteran of the Coral Sea campaign is now an instructor at Lee Field.



Swimming is an important part of the physical training program for student officers. Here, the recently commissioned officers use their shirts to serve as life buoys.



### FIGURES BEFORE RIVETS

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# OPERATIONAL AIR TRAINING



Memory



Well Done

Mission Accomplished



Final Instructions

Leave



**GEORGE BENSON**  
Ensign, USNR  
Student Officer in Operational training at U. S. Naval Air Station, Jacksonville, Florida.

Age: 24 Yrs.  
Height: 6'1"

Weight: 200 lbs.

Is one of five children, having two brothers and two sisters. Was graduated from Northwestern University in 1942 where he won letters in football, basketball and baseball. Chosen as full-back on Grantland Rice's All-Navy team in 1942 when he played for Iowa Sea-hawks. Was commissioned at Corpus Christi, Texas, and then moved to Jacksonville for Operational training.

1. We constantly study models of ships and planes in our recognition classes.
2. Each flight is a new and interesting experience.
3. Another flight completed, we are nearing the end of our training and will soon move out into the fleet.

4. We talk over the situation just before going out to the line.
5. Our activities at the field over for the day, we step out for some recreation.



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